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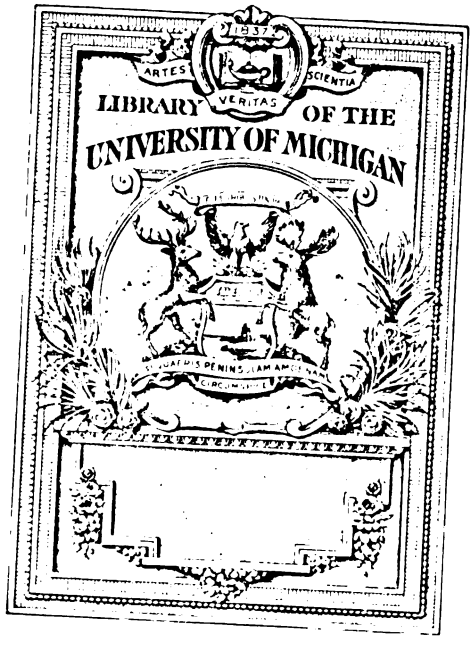
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THE

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DEVOTED TO

MEDICINE, SURGERY AND THE COLLATERAL SCIENCES.

VOLUME II,

1873.

EDITED BY

R. BEVERLY COLE, M. D., M. R. C. S., Eng.
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"Nunquam aliud natura, aliud sapientia dicit."

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THE

WESTERN LANCET:

A JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

FOR JANUARY, 1873.

Surgery.

ART. I.—*Two cases of Luxation of the Elbow Backwards; one of Fourteen Weeks, the other of Sixteen Weeks Standing —Reduction by the aid of Subcutaneous Section of the Triceps Tendon—Recovery.* By LEWIS A. SAYRE, M. D., of New York. Paper read before the Sixty-fifth Annual meeting of the New York State Medical Society, and published in the transactions for 1871.

CASE I.—Ricardo Gibbs, aged five years, native of Cuba, came to me on the ninth August, 1867, with a luxation of the forearm backwards, the result of a fall received fourteen weeks previously.

The limb was very nearly straight and fixed at the joint, no motion being manifest. Several attempts had been made in Cuba to reduce it but they were all unsuccessful. Col. L. Lay, of Havana, then sent him to me, and after a careful examination of the case I decided that it was worth a trial, although the fibrous adhesions were so firm as to give it the appearance of bony anchylosis. Drs. F. Hamilton and J. M. Bush, of Kentucky, were called in consultation, who both agreed with me as to the propriety of attempting the reduction.

The boy was perfectly anesthetized with chloroform, and I made vigorous efforts at reduction by flexion and extension for nearly half an hour, without any manifest change

in the position of the bones, although I succeeded in breaking considerably the fibrous adhesion. Dr. Hamilton then tried the reduction, but without any better result than my first effort. I made another attempt, and finding that I could not succeed unless I fractured the olecranon, I requested Dr. Hamilton to divide the triceps tendon subcutaneously, which he did while I made it tense by very strong flexion, and in a few minutes I succeeded in making the reduction perfect and complete. The elbow was secured at a right angle with "Ahl's Felt Splint," and kept wet with an evaporating lotion. The advantages of these splints over all others, that I have seen, in cases where we wish accuracy of adjustment with permancy of retention, and at the same time wish to keep the parts wet with lotions, either hot or cold, without any danger of their change of form or position, can only be appreciated by those who have practical experience in their application. In this case it was retained on the arm for several days without the slightest change in position, although saturated with the lotion all the time, and gave the greatest possible comfort to the patient.

Two days after the operation the arm was much swelled and greatly discolored, from the extravasated blood; but it gradually subsided and on the tenth day the swelling had almost entirely disappeared, but the discoloration lasted for some weeks.

After the tenth day the splint was removed daily, and passive motion given to the joint with friction to the arm and forearm, and on the twentieth day from the operation, the flexion and extension of the elbow could be made complete and without any pain whatever.

There was very little voluntary power over the brachialis anticus muscle, and electricity was applied to it and the biceps flexor. This was continued every other day for two months, with friction and passive motion to the joint, by which time he could flex his arm to a right angle, could tie and untie his cravat and extend his arm nearly straight.

He then left for his home and I have not seen him since, but have learned from his father, a few months since, that the motions of his elbow were as good as that of the other.

CASE II.—On the seventh December, 1870, Dr. E. S. Dunster sent to my clinic, at the Charity Hospital, a lad aged thirteen years, who had a luxation of his elbow backwards of thirteen weeks standing, and had been treated by a druggist in the country, by a straight splint and, of course, his arm was quite firmly anchylosed in a perfectly straight position.

Dr. Dunster had tried, a few days before, to reduce the luxation, but without success, and sent him to me for another effort, if I deemed it advisable.

The joint was so inflamed at the time from the result of this effort, that I was afraid to attempt it, and advised the application of ice-bags until the inflammation should subside. He was presented again on the following week, and while examining his arm, and before any attempt was made to reduce the luxation, he swooned and was revived with great difficulty. The boy was anæmic from starvation, and the bruit in his neck was like that of a chlorotic girl. As any anæsthetic in his present condition was dangerous, and as it was impossible to perform the operation without it, he was advised to wait until his general health was improved, and for that purpose he was put upon a nutritious diet, with a full allowance of iron and quinine.

Some doubts having been expressed as to the propriety of attempting the reduction, I called a consultation on the twenty-second December, Dr. Hewett, formerly Surgeon U. S. A., who advised resection, and some of the other gentlemen also advised this course. Dr. Mason detected the fracture of the coronoid process which had become attached to the anterior portion of the condyle of the humerus. The arm was *perfectly straight* and admitted of only the slightest possible motion. After carefully weighing all the points in the case, I decided not to resect it as it might be followed by tedious suppuration and his condition was too feeble to take that risk.

Resection of a joint that has been a long time inflamed, and where the periosteum has become thickened and will readily peel from the bones so that you can make the resection *sub-periosteally* is a very easy matter; but when the bones are in their normal condition, it is impossible to detach the periosteum except in shreds; I therefore decided to attempt the reduction and, should this prove impossible, I would then fracture the olecranon and take my chances for motion; at all events have recovery with the arm anchylosed at a *right angle*, which would make it much more useful than in its present position.

He was fully anæsthetized by ether, and with considerable force I succeeded in breaking up the adhesions and flexing the arm to an angle of about 135 degrees, when I was checked by the tension of the triceps, and fearing that the olecranon would fracture if any more force was used, I requested Dr. Mason to divide the triceps, which he did subcutaneously, and almost instantly the fore arm was brought to a right angle with the arm, when it was checked from

any further flexion by the coronoid process which was attached to the anterior portion of the condyle of the humerus. By using the forearm as a lever, and with some considerable force I fractured off this attachment and succeeded in flexing the arm to an angle of 45 degrees. The arm was secured in this position and treated the same as in the first case. Very little inflammation followed and at the end of a fortnight passive movements were commenced, and I was informed yesterday, by Dr. Dunster that he has every prospect of a recovery, with very good, if not perfect motion. The dislocation had lasted sixteen weeks, lacking two days.

Gross, vol. 2 page 144, says: "The reduction of this dislocation is extremely easy if attended to immediately after its occurrence, but very difficult if it be neglected even for a very short time. Upon this subject there is no difference of sentiment among practitoners, writers and teachers. My experience in regard to it is ample, and in perfect accordance with that of the profession generally. I have no recollection of ever being foiled in my effort in a solitary instance of recent dislocation of the elbow joint; while I can call to mind a large number of cases where everything that could be done proved unavailing after the third week, and sometimes even by the end of the second. I am not prepared to assign any reason for this, to say why a displacement that is always so easily rectified if properly managed in its early stages, should so soon become utterly resisting and defying all the best directed efforts of the surgeon."

These two cases show that we may sometimes be successful even after a longer period than three weeks, and therefore justify the effort. That there was a fracture of the coronoid process in this case, there can be no possibility of a doubt, its crescentic edge could be distinctly felt on the anterior surface of the condyles of the humerus, to which it had been quite firmly attached, and when the forearm was strongly flexed it was fractured off with a very distinct snap that was clearly audible to the entire class. The olecranon was not fractured, nor was any other bone and, therefore, this distinct noise of a fracture must have been made by the fracture of the coronoid from its new attachment.

Hamilton in his work on fractures (Ed. 1863, page 267 *et seq.*,) says: "Dissections have established the possibility of this fracture as a simple accident in the living subject, but I have not, myself, seen any example of which I can speak positively."

He relates two cases in which the existence of such a fracture was at first suspected, but in regard to which he afterwards had very little doubt that his diagnosis was incorrect.

After analyzing the reported cases, he concludes; "The fact, therefore, that so few cases have been reported, and that most of these are far from being clearly made out, remains presumptive evidence that the actual cases are extremely rare; but, if to this we add such negative evidence as is furnished by actual dissection and examinations of the pathological cabinets of the world, we think the testimony almost conclusive. Only four specimens have been mentioned by any of the surgical writers known to me." These four he shows to be not altogether satisfactory, and concludes: "We are, therefore, left as before with no evidence that the coronoid process was ever broken by the action of the muscle, and with only one example in which it is probable that a fracture occurred as a consequence of a dislocation of the radius and ulna backwards." The last one of my two cases, I feel quite confident, can be added to his list.

Dr. Mosely, Demonstrator of Anatomy, in Bellevue Hospital College, showed me a specimen, a few days since, which he had obtained in the dissecting room, in which there was distinct fracture of the coronoid process and union by ligamentous junction. Dr. Darling, Prof. of Anatomy in the New York University, has another specimen which was presented to him by Dr. Bradley, of this city, which is almost the exact counterpart of my second case, luxation of both bones backwards, and fracture of the coronoid process, which had become anchylosed to the anterior portion of the condyle of the humerus.

The variety of this accident, according to Hamilton, and the difficulty of its treatment, according to Gross, and which, in this instance was so perfectly successful, has appeared to me, a sufficient reason for placing the facts before the society for permanent record.—JANUARY 20, 1871.

ART. II.—*Ligation of the Femoral Artery.* By J. F. MINER, M. D.

Case I.—Patrick Leary, *aet.* 36, was admitted to the Hospital Sept. 19, 1872. His history is as follows: While passing between two cars they came together, and a large iron bolt similar to the coupling pin was thrust into the anterior and inner portion of the left thigh passing back of the bone completely through the muscular portion. I saw

him a few moments after the accident and on making an examination found the condition of the leg as just stated. The wound was largest on the front of the thigh and I could pass two fingers completely through the opening. The bone was not injured, and there was but little bleeding, the wound being a lacerated one.

He was, by my advise, sent to the Hospital where he fell under the care of Dr. Boardman at that time in charge. When I entered upon my term at the Hospital, Oct. 1st, I found the patient doing well, the wound healing, and with the exception of a slight diarrhœa everything was progressing favorably. Early on the morning of the 2d I was hastily summoned to see the patient, and found that he had been bleeding profusely from the wound.

With the assistance of Dr. Boardman I ligated the Femoral Artery below the Profunda. All hæmorrhage immediately ceased. The patient on recovering from the Anæsthesia seemed quite cheerful although faint from loss of blood. He was placed in bed and tonics and stimulants administered. Everything progressed favorably, the parts retained their natural color and heat, the process of repair in the original wound went on, and our patient seemed in a fair way of recovering, when in about forty-eight hours from the first hæmorrhage, he began to bleed again. The nurse having been warned of the possibility of such an occurrence was prepared and soon checked the bleeding. On the morning of the 4th with the assistance of Dr. Boardman I again ligated the Femoral this time above the Profunda as the bleeding was now clearly from that vessel.

The patient was again placed in bed, stimulus administered and heat applied to the leg. But Gentlemen, I am sorry to say, everything we could do for the unfortunate man was of no avail, the leg began to mortify and the patient growing weaker and weaker day after day, at the end of a week died delirious. The question naturally arises, and Gentlemen, it is one which will often arise in your minds; did we do the best thing for our patient, would amputation have afforded him a better chance for his life? You are all of you more or less familiar with the results of amputation of the thigh, you know that it is a serious operation, and that in many instances it is a fatal one.

To have amputated at the first operation would have perhaps been looked upon as unnecessary. To have performed the operation at the time of the second ligation would have probably from the weak and exhausted state of the patient proved fatal.

In my own mind however the question has arisen as to

whether I did right in not amputating in the first instance. We often learn more from our mistakes, than we do from our most brilliant successes, and I leave this case to your consideration, hoping that you may be enabled to profit by it.—*Buffalo Med. and Surg. Journal.*

ART. III.—*The Surgical Treatment of Aneurism.* By Prof. HOLMES, Royal College of Surgeons, of England.

In his lecture on "The Surgical Treatment of Aneurism in its Various Forms," Prof. Holmes said that the conclusions justified by present experience as to the applicability of Brasdor's operation in innominate aneurism, appeared to him to be as follows:

1. That the distal ligature of the carotid alone, or in conjunction with that of the third part of the subclavian, cannot be trusted to produce the complete consolidation of the tumor.
2. That the natural effect of the ligature of the carotid artery is to produce coagulation in that part of the sac directly connected with the mouth of the artery.
3. That this may suffice practically for the cure of the aneurism when the subclavian part of the aneurism is small and shows no disposition to grow.
4. That in other cases where the mouth of the subclavian artery is previously obliterated by impacted clot, the ligature of the carotid only may effect a radical cure.
5. That for these reasons it is better, in any case which appears to require distal ligature, to commence with the operation on the carotid alone, and afterwards to consider the propriety of securing the subclavian either it its first or third part.

As to the justifiability of operating on the first part of the subclavian, the Professor made the following remarks:

The ligature of the first part of the subclavian has hitherto failed, on account of the almost uniform occurrence of secondary hæmorrhage. There are dangers in the operation, viz: anatomical difficulties, and the possibility of wounding the sac, or of finding the vessel diseased. Still, most surgeons would allow that if the ligature of a large artery involved little or no risk of secondary hæmorrhage, the operation might be repeated under similar indications

to those which would justify any other operation of equal importance. The less or greater risk of secondary hæmorrhage depends on the possibility or impossibility of securing an artery so as to obliterate without dividing it. Now, this has been an object with the surgeons since the first case in which John Hunter tied the femoral for popliteal aneurism; and the methods by which the attainment of the object has been attempted are the temporary ligature, the *presse artère* or acupressure, and the silver ligature. None of these, except the *presse artère*, has as yet afforded definite proof of success, and this only exceptionally.

A case lent by the College of Surgeons of Ireland, showing the obliteration of the femoral by this method for popliteal aneurism, proves, however, that an artery may be obliterated and an aneurism cured without division of the vessel. The only thoroughly satisfactory case of silver ligature is one in which Mr. Holmes employed the wire on the femoral artery for popliteal aneurism. In this instance the wound healed in a fortnight, and, though suppuration occurred, the ligature was not discharged from the wound. But silver wire is dangerous, for if tied tightly it cuts the coats of the vessel more deeply, and produces more and more rapid ulceration than the silk thread. In preventing secondary hæmorrhage its use is too uncertain to be preferable to silk. Carbolized catgut, when properly prepared, may be used for the ligature of a large artery with perfect success without dividing the external coat of the vessel or interrupting its continuity, while the ligature itself is absorbed, and the wounds made over the vessels so tied often unite by first intention. This rapid union of the deep parts of the wound is a necessary condition for success.

The Professor then gave the history of the use of catgut for this purpose, mentioning especially the experience and comments of Sir A. Cooper (given in the "Surgical Essays" by Cooper and Travers, and in the 12mo. edition of his lectures published in 1829) and of Porta, who gives in his work, nine cases in which the operation was performed by himself, and two in which he assisted others. Porta nowhere, however, contemplates the occlusion of the vessel without its division; and, speaking of secondary hæmorrhage, says that "we shall never be able to annihilate its possibility by any method, or to reduce it within the limits which weobserve in the lower animals." In the case where Sir P. Crampton used a ligature of moistened catgut in tying the common iliac, in 1828; if the catgut had been property prepared, the ligature tied firmly and cut off correctly, and the wound and the patient been so treated as to

produce speedy consolidation of the deep parts, there would probably have been no hæmorrhage.

After referring to Mr. Lister's tract "On Ligature of Arteries on the Antiseptic System," Prof. Homles remarked that, whether Mr. Lister's explanation of his method of dressing wounds be or be not the correct one, that method is very frequently successful in producing rapid union, especially in the deep parts of the wound. This being granted, and as it can be demonstrated that catgut ligature, under favorable circumstances, will gradually melt away in the tissues without causing ulceration, it cannot be denied that the object which John Hunter and his followers so sought after had been discovered. A preparation of the lecturer's own case showing successful ligature of the carotid and subclavian arteries with carbolized catgut, and with no interruption of the continuity of either vessel, was exhibited. This specimen affords anatomical proof that a large artery in the human subject may be tied in such a manner that the wound may unite by first intention, and the patient never be in any danger of secondary hæmorrhage; and, further, the case shows that the catgut ligature may be removed by absorption, the vessel remaining undivided. Mr. Holmes expresses his opinion of the carbolized catgut in these words: "No material can be imagined better adapted for a ligature than catgut long steeped in carbolized oil; it is perfectly tough, perfectly flexible, and perfectly smooth. It excites no irritation, absorbs no putrescent fluid, and, though it gradually melts away, yet holds the artery firmly enough to close its tube permanently. Having used it in all large operations for about two years, I can testify to the latter fact, and I can say that I have never seen any sign of irritation produced by it, nor witnessed the escape of any of the little knots from the wound, and that I hold it to be a very much better and more convenient hæmostatic than torsion, and infinitely superior to acupressure. In fact, I have found it to possess all the comfort of the silk ligature, without its disadvantages. I do not, however, imagine that catgut, or any other ligature, can be applied to an artery with perfect success unless the tissues around become rapidly coagulated by first intention. An artery exposed in the middle of a suppurating cavity will, I believe, always soften and give way, and it was most probably because they failed to secure this prompt union of the deep parts of the wound that Porta in most of his experiments and operations, and Sir A. Cooper in the operations which he performed after his first successful one, failed to obtain this perfect result." The infer-

ence, then, is that the subclavian may be justifiably ligatured in the first part of its course in those innominate aneurisms which advances after distal ligature of the carotid.

The applicability of the distal operation in the treatment of aortic aneurism, and the probable reasons of its beneficial effect in this form of the disease, were next discussed. With respect to the ligature of the left carotid for aneurism of the arch of the aorta, there is no doubt that there are cases in which it is very beneficial, though there are no theoretical grounds for the believing that cure can be effected by this operation. The beneficial result no doubt is produced by the obliteration of the part of the sac which was previously distended by the current of blood passing into the left carotid. When, then, the growth of the tumor can be traced upward toward the trachea on the left side, this operation is indicated, and when on the right side the distal operation on the same side will suggest itself. Finally, the treatment of aortic and mixed aortic aneurisms by galvanopuncture was considered, and the difference in the clot produced in any albuminous fluid according as the positive or negative pole is used was mentioned; the positive pole producing a firm coagulum, and the negative a large, frothy mass formed of minute coagula.

Mr. Poland's summary of Abeille's cases prove that the clots produced by electricity may be as efficacious in the cure of an aneurism as those produced by other means; but it must be allowed that there is at present much uncertainty as to the value of the method, and as to the effects of any given operation, and many details as to the method of employing this agent have to be cleared up before our estimate of the value of it can be formed with certainty. Prof Holmes is disposed to think that both poles should be used, that the action should continue for a considerable time under anæsthesia, and that the needle should be partly coated with vulcanite, so as to defend the soft parts covering the tumor. The uncertainties connected with its employment, however, are sufficient for discarding electropuncture in cases of aneurism of arteries accessible to pressure or ligature, as these methods are safer and more reliable.—*Medical Times & Gazette.*

Institutes and Practice of Medicine.

ART. IV.—*Rubeola in Japan.* By D. B. SIMMONS, M. D., Surgeon in charge of Kanagawa Ken Hospital, Yokohama.

The very common disease Rubeola, of western countries it is well known, besides appearing epidemically, continues to reproduce itself, and though at times very circumscribed and mild in form, never entirely dies out.

I find that this is not the history of the disease in Japan, but that it appears *only* epidemically and then entirely disappears. The record to these periodical visitations, though merely chronological, extends back to a very early period of the history of this country. The longest time of the complete absence of the disease is put down as we shall see, at 152 years, and the shortest at 11. This curious fact together with a brief account of its first appearance in these Islands though of no great scientific value, is sufficiently interesting, we think, to offer as a contribution to medical literature.

In the year 552 A. D., the Emperor or Mikado of Japan sent an embassy to Corea, the nearest point of Continental Asia, bearing presents of the plants and seeds of his fertile domains. His Corean Majesty, in return for these courtesies sent back a golden image of Buddha, not only as a religious emblem, but to indicate that his country's wealth was in the precious metals. During this exchange of Imperial courtesies, rubeola first made its appearance in this country and, assuming an epidemic form, spread with fearful rapidity from one end of it to the other. *

The native name of the disease is Ha-shi-ka, and is derived from a rash produced by a species of nettle found in the

* As the missionaries of the Buddhist religion only reached Corea about this period, it is not too much to suppose that they brought this disease with them and implanted it in that country, as its adherents, who accompanied the golden image, did in Japan.

farming districts. As I have failed to discover a single case of scarlatina in thirteen years, I am convinced that the disease is unknown in this country, and consequently could not at any time, have been mistaken for the one in question. The following is a record of the epidemics which have occurred from the date of the first appearance of the disease, to the present time:

First	Epidemic,	552 A. D.				
Second	"	584	"	Interval	32	Years.
Third	"	736	"	"	152	"
Fourth	"	814	"	"	78	"
Fifth	"	853	"	"	39	"
Sixth	"	915	"	"	62	"
Seventh	"	947	"	"	32	"
Eighth	"	984	"	"	37	"
Ninth	"	999	"	"	15	"
Tenth	"	1025	"	"	26	"
Eleventh	"	1076	"	"	51	"
Twelfth	"	1093	"	"	17	"
Thirteenth	"	1113	"	"	20	"
Fourteenth	"	1126	"	"	13	"
Fifteenth	"	1141	"	"	15	"
Sixteenth	"	1161	"	"	20	"
Seventeenth	"	1176	"	"	15	"
Eighteenth	"	1190	"	"	14	"
Nineteenth	"	1206	"	"	16	"
Twentieth	"	1224	"	"	18	"
Twenty-first	"	1256	"	"	32	"
Twenty-second	"	1277	"	"	21	"
Twenty-third	"	1331	"	"	54	"
Twenty-fourth	"	1342	"	"	11	"
Twenty-fifth	"	1471	"	"	129	"
Twenty-sixth	"	1507	"	"	36	"
Twenty-seventh	"	1587	"	"	80	"
Twenty-eighth	"	1654	"	"	67	"
Twenty-ninth	"	1690	"	"	36	"
Thirtieth	"	1708	"	"	18	"
Thirty-first	"	1731	"	"	23	"
Thirty-second	"	1744	"	"	13	"
Thirty-third	"	1779	"	"	35	"
Thirty-fourth	"	1804	"	"	25	"
Thirty-fifth	"	1824	"	"	20	"
Thirty-sixth	"	1836	"	"	12	"
Thirty-seventh	"	1863	"	"	27	"

The seventeenth invasion was marked by its mildness; the twenty-second, by the death of the Mikado and very many of the Imperial Court, from the disease. The thirty-fourth epidemic was attended with great mortality, and the sequelæ, such as ophthalmia, diarrhœa, etc., etc., were especially severe.

The following observations made by the native doctors are taken from the same source as the record:

"If the eruption is abundant on the face and light on the body, the prognosis is good. A sharp fever at the beginning is not a bad sign; but if it increases about the decline of the eruption, the prognosis may be regarded as unfavorable. Hygienic measures are chiefly relied on for the cure of the disease. The first stage of an epidemic is attended with a greater mortality than at a later period. This is explained by the fact that when the disease first appears the people are not prepared for it by hygienic measures of cleanliness, diet, etc. Pregnant women are very apt to miscarry."

The last epidemic, occurring in 1863, I had an opportunity of observing in all its phases. Since that time, though my advantages for observing the diseases of the country have been great, I have not heard of a single case, which leaves no room for doubt as to the correctness of my statement at the commencement, that the disease once started continues to spread until it has consumed all the unprotected material and then completely dies out.

A strong argument is here offered in favor of the theory sometimes advanced for the spontaneous production of the disease, and especially so, because of the well known seclusion in which the nation has kept itself for ages. My own belief is in the necessity of an infecting germ thrown off by an actual case of the disease as a means of its propagation, and that this germ has been brought from the neighboring continent by intercourse, clandestine or otherwise, with its people on the occasion of each epidemic. In support of this belief, I have to offer the circumstances as to the origin of the disease, on the occasion of its last visit, in 1863, and which came under my own observation.

The English Chargé d' Affaires contracting the disease in

China, broke out with the eruption on the voyage to this place. Immediately on his arrival, he came on shore and at the end of the regular incubating period, his native servant was attacked. From this case it spread with such fearful rapidity that I failed to keep track of its individual steps of propagation. It soon reached Yedo, then with a population of over 2,000,000, and in the space of six weeks, the mortality reached 75,000! In an incredibly short time its ravages extended over the whole empire.

Out of the estimated population of 30,000,000, we cannot calculate on a less number than 20,000,000, as being under the age of 27, the number of years since the appearance of the previous epidemic, consequently all under that age were unprotected. Another proof of the statement that the disease dies out after each epidemic is, that I did not see one in twenty persons, under that age, who did not suffer from it. We cannot be far wrong, therefore, in saying that 18,000,000 persons were attacked with the disease within six months after the English Chargé came on shore with it at this port.

The estimated mortality for the Empire, during this epidemic I have never seen, but when we take into consideration the number taken sick who were adults, pregnant women, or broken down with other complaints, it must have reached a figure far beyond what we are accustomed to see in the West. The effect of this epidemic on commerce, business of all kinds and even social intercourse, was almost paralyzing. How much more so must it have been after those long periods of the non-appearance of the disease which overlapped an entire generation, and when the entire population must have suffered?

It is an interesting fact, worthy of note in this connection, that scarcely had the wave of this epidemic passed over the Empire, before one of cholera rolled in from China where it was then raging. The mortality of the latter disease was doubled by this coincidence. In Yedo alone, over 200,000 died from it, and the other large cities suffered in the same ratio.

YOKOHAMA, JAPAN, November 7, 1872.

"San Rafael Clinique"

Art. V.—*The use of the Poultice and Vapor of Water in Pneumonia—Cases.*

Pneumonia being in all climates a grave disease, and one which, however treated, results not unfrequently in death, has been treated in almost every conceivable way and success claimed by the advocates of every kind of practice.

It is not the purpose of this article to discuss the merits of the different forms of treatment, nor the pathology of the disease, but rather to call attention to an agency not in such general use as in should be, namely; moisture, and to its application to the inflamed lung, both from within and without. Surgery has for many years ceased to irritate an inflamed surface, has cast aside the old fashioned dressings, the ointments and cerates, and now only covers the part with a wet rag; if warmth is needed lays over it a piece of oil silk. Medicine still we think, tries in many roundabout ways to accomplish that which simple means alone are able if properly used, to do. If we conceive pneumonia as a local imflammation and call surgery to our aid, she doubtless would direct us to keep the parts moist, to surcharge the air that reaches the inflamed surface with moisture, to prevent changes of temperature, to relieve the organ of labor, to give it rest, to relieve the congestion by a removal of blood, if possible, from the part inflamed by posture, by acting on the bowels with salines, and by causing the skin to act freely, and in any other way that we can without too much weakening the general system. The following cases will illustrate some of the points of treatment alluded to :

Case I.—Called to see Miss A., *aet.* 18. Her history showed me that she had a fairly healthy constitution. After exposure to cold she had been seized with her present illness, the respiration was frequent, (about 35 if I remember correctly) and pulse quick and counting 130; on examining the chest I found dullness over the lower two-thirds of the left lung and fine crepitation could be heard. *Diagnosis*, Pneu-

monia in its first stage. *Prognosis*, everything considered, favorable. Ordered a poultice of ground flax seed sufficiently large to cover the whole of one side of the chest, with oil silk stitched to its outer side and tape to keep it even with the shoulder. The doors being closed, the room was filled with steam by putting hot bricks into a pan of water, and the clothing being removed the poultice was applied. A blanket was next so arranged about the head of the bed that a current of vapor could be kept up which would charge the air she breathed, without itself striking against her person, the steam was generated by a spirit lamp with a large wick burning under a tripod supporting a shallow tin dish containing water, and the whole covered by a tin hood perforated at the sides for air to enter, and connected at the top with a three inch jointed tube. By means of an elbow the steam could readily be carried wherever needed. I then gave directions that the steam should be kept up night and day. The bowels being constipated and the tongue coated, five grains of blue mass were ordered to be followed in the morning by a saline aperient, and to commence with a mixture of equal parts of sp. etheris nitr. and liq. ammoniæ acet. with $\frac{1}{16}$ of a grain of tartrate of potass and antimony. One teaspoonful to be taken every three hours. Soon after these arrangements had been completed, she expressed herself as feeling much more comfortable. The skin acted freely; during the night her bowels were opened and in the morning her pulse was softer and less frequent. The thermometer also showed a lower temperature. To conclude the history of the case briefly, the moisture was kept up both within and without. The antimony and diaphoretic increased or diminished, the former never being increased over the $\frac{1}{32}$ of a grain every three hours. An expectorant of squills and nitre, to which the antimony was afterwards added being after a time substituted. The poultices were changed every forty-eight hours, care being taken to have another one ready, and the room heated with steam. The surface of the chest was rubbed with an oiled sponge and the fresh poultice quickly applied. Once the steam apparatus was discontinued during the night, and in the morning the patient was found excited and feverish.

She convalesced rapidly, receiving beef tea and brandy at first, with her antimony, then alone, finally only port wine and soup. She had a relapse from imprudence when nearly well, but after a time she regained her lost ground and rapidly recovered strength. The sputa in this case was tenacious, sank in water and became for a few days a prune juice color gradually resuming a normal character.

Case II.—Called to see B., a child two years old; found dullness or percussion over the greater portion of one lung, together with dry râles and fine crepitation; exaggerated breathing over the other; the pulse 160; respiration very rapid, 55–60; skin hot. Applied poultice and steam, surrounding the crib with a blanket. Gave small doses of ipecac. with liq. ammoniæ acet. and spr. nit. dul., and acted on the bowels by a dose of citrate magnesia.

Case III.—Called to see C., a child three years old; diagnosis pneumonia; symptoms almost precisely the same as in the case of B. Treatment—vapor, the poultice, and small doses of ipecac. These two last cases recovered, each running through the disease with rapidity. In all three cases, if the steam was discontinued or ill managed for a time, the patients suffered from it.

Case IV.—D., *æt.* 33. A stout, healthy man; seized suddenly with a chill and sharp shooting pain in one side; dullness on percussion; a cough with tenacious expectoration temperature 104; respiration 30; pulse 130. Applied poultice, diagnosing the case as one of pleuro-pneumonia. Room kept filled with vapor and at a temperature of 75°; gave $\frac{1}{32}$ of a grain of antimony every three hours, afterwards an expectorant. The action of the skin assisted by a mixture of nitre and acetate of ammonia, as in the former cases. The bowels were kept open and beef tea and brandy given at first, and after a time, port wine and ale. This case recovered rapidly.

I have given a few prominent points in three cases, simply to show that the poultice and the vapor of water *seemed* to answer a good purpose. Antimony or ipecac was used in all, and beef tea and brandy likewise. The quantities of each were small, and patients soon partook of normal food.

This treatment is by no means new. Chambers calls attention frequently to the use of the poultice, and many other writers mention the good effect of vapor. Combined as they should to be in this disease, they are not in as common use as from their efficacy they deserve to be. I have, therefore, thus briefly called attention to them as having, in a *large* number of cases of simple congestion of the lungs, of pneumonia, and of pleuro-pneumonia, afforded me much satisfaction. The poultice has one disadvantage. It is almost impossible to watch with the ear the progress of the

disease towards recovery. Both, if used at all, must be used continuously. Before they are discontinued, each successive poultice should be thinner than the last, and the vapor should gradually be lessened in quantity, and a small wood fire kept up in the room, if possible. Finally, the oil silk covering a piece of flannel should be applied, and worn for several weeks after recovery has taken place.

NOTE.—The room in which the vapor of water is to be used should be small, and the apparatus generating the steam arranged so as while only slightly heating the air, yet keep it surcharged with moisture, giving off a regulated quantity both night and day. The temperature of the room should be maintained at about 75° Fahr., the attendant bebeing required to examine the thermometer every few hours, and not to trust to his feelings. The apparatus above mentioned can be made by any tinner, costs little, and answers the indications perfectly. The poultice should be sufficiently large to cover the whole of the affected lung, and the cloth on which it is spread should be long enough, so that when the patient is laid on it, it can be pinned around the whole chest. Tapes should be fastened across either shoulder, the oil silk having previously been stitched on the outside of poultice. Attention is called to these *minutiæ* as the value of the poultice, like that of many other simple agencies, depends upon the proper application. The physician should examine its condition at every visit. I have found few attendants who were competent to apply it in a satisfactory manner without much drilling.

In considering these brief remarks, I would say that simple as this treatment is, yet I have learned to place great dependence on it *if properly carried out*, otherwise it is apt to do harm. I make no apology for the foregoing hints as he who calls attention to simple agencies for the cure of disease, if they be effectual, certainly does more than he who recommends medicines of great but uncertain power. The number of cases given could have been extended to some forty or more, but as in all the same treatment was adopted, nothing would have been gained without an analysis of and tabulations for which I have not the necessary data at hand.

ART. VI.—*Senile Gangrene of the Nose—Death.*

H. S., *aet.* 70 years, native of Ireland, and of intemperate habits, was admitted to the Philadelphia Hospital on August 14, 1872, without any positive disease, but with a system enfeebled by old age and the wearing effects of a life of hardships.

On October 1, there was evident congestion of the lungs, with spitting of blood, and with dyspnœa.

On October 12, a small dark point, not larger than a pin's head, appeared on the tip of the nose with some lividity of the tissue for a few lines around. In this spot there was a sensation of stinging, but no positive pain, it not being mentioned except in answer to questions. This dark spot gradually extended its area, but without any increase in the limited amount of inconvenience. The patient was however, confined to bed by his feeble condition, and the pneumonic breaking down of the right lung, as evinced by the sputa and the auscultatory signs.

The man being brought before the class, Dr. Wood stated that in this patient we had a man aged not only from years but also from the character of the life he had led. The muscularly laborious men—and especially is such the case if with hard physical toil has been combined intemperance—on arriving at seventy years are older than others are at eighty. In such we find well marked those degenerative changes in the human economy which present themselves as years pass by and old age advances.

You see the black spot on this man's nose; a few days ago it was but a little speck, yet gradually extending it now embraces all of its extremity. It is dry, shrunken and glazed. This is senile gangrene, due generally to atheroma of the walls of the arteries, and occurring most commonly in one of the extremities, most frequently the toes, but also in the fingers, ears, nose, and other points remote from the centre of circulation. The atheromatous or calcareous condition of the vessels, by slowly cutting off the blood-supply, produces, as in infiltrated tubercle a dead, shrivelled state of the tissues,—the dry or senile gangrene. In cases like this one, there is always a sluggish state of the circulation. In this man we find the ears, toes, and fingers cold and livid, the nails blue, and all the evidences of enfeebled circulatory powers. The gangrene, in this instance, cannot be due to an embolus, *i. e.* it cannot have been caused by a vegetation escaping from a valve of the heart and by means of the circulation entering the facial artery, so as to have occluded one of its ramifications. This cannot be the case, because an embolus would rarely enter the facial artery,

but will rather continue in the larger vessels which follows a more direct course, and not enter a smaller one going off at an angle. Besides, if the gangrene were due to an embolus, it would be unilateral, whereas it is here bilateral.

You should be well prepared to recognize the first appearance of this condition. The dark point, like the cloud no larger than a man's hand, trivial as it appears, should forewarn you of what is approaching. It is almost invariably the forerunner of approaching dissolution. Occasionally, as in the lower extremity, a line of demarcation is formed, and the surgeon is justified in removing the offending part, with a possibility of the patient's recovery. Yet such cases are exceptional ones.

For our patient nothing can be done but to render him comfortable. A supporting treatment is indicted, and opium may be given because of its stimulant effect upon the capillary circulation.

[This man died on October 18, 1872, from exhaustion.] *Medical Times.*

ART. VII.—*Nasal Diphtheria—Death. Malignant Coryza.*

G. A., *aet.* 58 years, and a native of Germany, was admitted to the hospital on October 12, 1872. It was impossible to obtain any satisfactory account of his past life or of the incipiency of his present trouble. His condition, however, was a typhoid one. His tongue was very dry, brown, and fissured. The pulse was frequent and weak, but the heart's sounds were normal. Physical exploration showed the lungs to be clear, excepting some bronchial râles. The respirations were however, performed with difficulty, and attended with a peculiar sound, as if the posterior nares were partially occluded. The mucous membrane of the anterior nares was very red and swollen, and there was a thin, ichorous discharge. Inspection showed the pharynx, soft and hard palate, and tonsils, to be changed in appearance. They were of darker color than normal, and in spots were covered with an ash-colored exudation. The bowels were constipated. There were great restlessness and jactitation. The evening temperature was 99° F. The administration of half an ounce of castor oil produced four or five fluid evacuations, rendering it necessary to administer astringents. Quinine and iron were directed to be taken every three hours. Milk punch and liquid diet were to be given at regular periods.

On the night of the 13th, there were manifestations of delirium; and a return of the diarrhœa. No tympanitis; no eruption on skin. Temperature at midnight 98° F.

October 14.—Symptoms more unfavorable. Entire mucous membrane of mouth dry and brownish, excepting where covered with the exudation. This had spread over the hard palate; had appeared on the lips and buccal surface, and had become quite dark in color. There was occasionally an escape of the bloody, serous fluid from the anterior nares—adynamia more marked. The symptoms became more and more decided, until death, which occurred on October 15, 1872.

Dr. Wood presented to the class the specimens obtained at the autopsy. The thoracic and abdominal viscera were apparently normal. A vertical section had been made of the head, passing through the posterior portion of the pharynx, giving a good view of the posterior nares, larynx, fauces, etc. There was a soft, semi-coagulated, ash-colored exudation on the walls of the pharynx, extending through the fauces into the mouth; also into the posterior nares. The mucous membrane of the turbinated bones seemed swollen. There was no exudation in the larynx or œsophagus. Dr. Wood stated that the appearances now confirmed the diagnosis made during life, viz: that of nasal diphtheria; a disease which is generally fatal, in spite of the most prompt and judicious treatment. The ichorous discharge through the nose is an early and diagnostic symptom of the nasal form of diphtheria, and is almost as sure a precursor of death as the dark point on the old man's nose. The patient will complain of the nares being occluded; the nostrils collapse, and there is a difficulty in respiration; the local trouble is not, however, the agent of death; the patient does not die of suffocation. The disease is emphatically a constitutional one, and death is due to the general adynamia. All treatment in nasal diphtheria seems unavailing, but the indications are for supporting and stimulant agents, with such local remedies as copper, tannic acid etc., in weak solution.

There is a disease in childhood somewhat resembling nasal diphtheria, rarely if ever spoken of in the books. It is a malignant coryza. In this affection there is a very free discharge from the nose of a thick, tenacious mucus—so free indeed that perhaps a quarter of a pint will be secreted by an infant in the twenty-four hours. This mucus is very different from the ichor of nasal diphtheria, and is unaccompanied by anything like a membranous exudation. With the local trouble there is a severe fever, and often from the first onset very marked prostration, resembling that seen

in diphtheria. In young children this affection is often very serious, not merely on account of the constitutional but of the local trouble. I have seen the mucus so thick that it would scarcely drop out of the cup when the latter was inverted. The nostrils are absolutely occluded; and the infant, unable to breathe in the ordinary way, rises up in terror, strangling and gasping for breath, and at best is unable to nurse or sleep, from the constant necessity of voluntary breathing. The danger of exhaustion in such a case is twofold: first from the blood-poisoning; secondly, from the constant effort and the want of nourishment and sleep.

It is, therefore, often absolutely necessary not only that the general strength be supported by the most concentrated diet, by stimulants, by the tincture of iron, etc., but that the nostrils be cleared out. This must be done by injections; and I have found that a solution of the sulphite of lime (grs. xv to ℥j) rapidly dissolves the mucus, and improves the condition of the system. I have used such injections, in some cases every hour, with the apparent effect of saving life.

The child dreads them, and resists them with all his might. But the head should be firmly held, and about an ounce of the solution thrown rapidly up one nostril; this must be repeated on the other side, if the solution does not find its way into the other nostril. In my experience marked benefit follows the use of these injections for a few hours, and though it is often very distressing to give them, they appear at times to actually save life.—*Medical Times.*

Gynecology and Diseases of Children.

ART. VIII.—*On the Teachings of Dr. J. Marion Sims Regarding the Cause and Treatment of Sterility.* By DR. VON SCANZONI.

[Beiträge z. Geburtskunde u. Gynaekologie. Scanzoni, vol. vii. p. 109.]

The fundamental idea of the modern surgical treatment of sterility by operations designed either to dilate or to straighten out the cervical canal, is that these always exists a mechanical obstacle to the entrance of the spermatozoon.

Scanzoni earnestly protests against the acceptance of a theory based on careless observation of phenomena, and which necessitates the frequent performance of an operation which is in itself dangerous, and in some cases fatal. Opposed to the new school of gynecologists who regard the publication of Dr. Marion Sims's book on uterine surgery as the dawning of a new era in this hitherto neglected branch, he maintains that the want of careful histories of cases, and a certain or rather an *un*certain looseness of expression with regard to actual results, so decidedly deprive it of scientific value that its review becomes a difficult and arduous task. So far from regarding a mechanical obstacle to the entrance of the seminal fluid into the uterus as the sole cause of sterility, he brings forward and urges the importance of the following morbid conditions, which may be and often are, the causes which prevent conception,—viz., functional disease of the ovary or testicle, which results in the production of a vitiated ovum or spermatozoon, or the occurrence of any one of the numerous pathological conditions which may prevent the exit of the ovum from the ovary, its reception by the Fallopian tube, and its passage into the uterus. We are, for the most part, utterly unable to diagnose the existence of any of the abnormal states which would produce such a result; and yet the possibility of conception depends on the physiological and harmonious sequence in the functional activity of these organs.

In order to prove that conception may occur in spite of the most extreme displacement, several cases are given in detail, where the introduction of the sound was rendered absolutely impossible, owing to the marked flexions of the uterus, or, as was the case in one instance, to the existence of an inguinal hernia of that organ; and yet in all the histories given conception repeatedly took place. While Scanzoni admits the general truth of Marion Sims's statement that the pain of dysmenorrhœa depends on a mechanical obstacle to the passage of blood from the cavity of the uterus, he still maintains that *all* cases cannot be explained in this way, and states that some of the most severe cases of uterine colic he has ever seen occurred before one drop of hemorrhage had taken place in the uterus, as he has repeatedly proved by the introduction of a sound, while the pain sometimes continued after the flow had been freely established, but not sufficiently so to take away the pressure from the over-excited nerves. So too the most intense uterine colic may be excited by the application of leeches to the cervix, even in cases where care has been taken to guard against the passage of one of them into the uterus—

an accident which some authors have availed themselves of to explain the severity of the pain.

Scanzoni then goes on to show in detail that in many cases it is simply impossible to diagnose, either by the fingers, sound, speculum, or by the aid of the sponge tent, such a contraction of the cervical canal as to justify us in regarding sterility as its *necessary* consequence, whether this contraction be due to a congenital or an acquired constriction of the os externum; the infiltration and swelling of the mucous membrane following a chronic catarrh of the organ, and a consequent development of the folds of the arbor vitæ; the presence of enlarged follicles with broad bases of the attachment (the ovula Nabothi); new formations grouped together under the head of mucous polypi, which for the most part originates in these same follicles; more or less extensive fungous excrescences caused by papillary growths; spastic contraction of the os internum; the various and often-occurring forms of flexion; diffuse hyperplastic growths affecting either the entire cervix or only certain portions of it; myomatous and fibroid tumors having their seat either in or near the cervix; or to intra-mural or pedunculated growths attached to the body of the organ. In all of these conditions neither the sound nor our other aids to diagnosis enable us to exclude pregnancy, as the histories of numerous cases given by Scanzoni show.

The author deplores the incompletemess of the statistical tables in Sims's book. It is true that it is stated that the operation for the Bilateral Incision has been performed five hundred times, but in only six of these cases it is stated that the wished-for result was attained, viz.: that the woman conceived. Four other cases in which conception followed the amputation of the cervix must be added to these. While Scanzoni does not doubt that Sims has other more extended statistical statements which place the operation in a more favorable light, still he says that these are the results from which we are asked to accept the operation. These ten cases are carefully analyzed and reviewed by Scanzoni, who finds that seven of the women had been pregnant before the operation—in other words, that we have to do here with cases of *acquired* sterility, in which the prognosis is unquestionably more favorable. The fact that the operation is not without danger is then insisted upon by Scanzoni, and the members of the profession are exhorted to review calmly the evidence on which this operation rests—the value of which cannot be denied in a few well-selected cases—before they follow blindly the so-called new school of uterine surgery.—*Medical Times.*

ART. IX.—*Albinism and the Marriage of Cousins.*

G. ARCOLEO (*Centralblatt*, No. 28) has made some remarkable observations on the occurrence of albinism in certain towns of Sicily. In a population of 255,000, living in five towns, were 62 albinoes, or 1 in 4000; 24 of these were not living at the time of making the observations. Of the whole number, 34 were males, 28 females. They were members of twenty-four families, but in only three of these were all the children albinoes. In one case, a pair of twins was observed, one normal, the other an albino. Six of these persons were married, and all but one had children, none of whom showed the least albinotic taint; nor was there any history of this defect in the parents or remoter ancestors. In several cases, it was noticed that, while the one parent of an albino was a blonde, the other might be dark. While, therefore, inheritance had plainly nothing to do with this peculiar condition, the writer thought he found strong support for the theory which connects albinism was consanguineous marriages. Other supposed causes, such as climate, privations, etc., were plainly without influence. On the other hand, in five of the twenty-four families, the parents were related in the second degree (? cousins); and some other consanguineous marriages had been contracted in previous generations. Although, in the other cases, no such relationship, could be traced, the social and political conditions of Sicily were thought to make it probable that such relationships might exist, though unsuspected by those concerned. The insular position, the want of intercommunication between different parts of the island itself, the jealousy and repugnance shown by the Sicilians themselves towards foreigners, are all conditions which must cause considerable intercrossing of the same elements. For instance, one of the families containing albinoes was that of a fisherman in Palermo, one of a race of people who are confined to one quarter of the town, and notoriously marry only among themselves. Moreover, other diseases, supposed to be connected with consanguineous marriages, are as a matter of fact, particularly common in Sicily, *e. g.*, deaf-mutism, rickets, idocy, and epilepsy. In support of the theory, it is also urged that albinism very frequently occurs in the oases of the African coast, where there must be the same isolated condition of the population as in an island.—*Med. and Surg. Reporter.*

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ART. X.—*To the Editors of the Lancet Journal.* Communication of DR. ADOLPHUS ANDREI.

Gentlemen:—Allow me to address you the following communication, and at the same time frankly to express my regret that you admitted to the columns of your estimable journal, that unfortunate boomerang fling at me, by an inexpert graduate of four months growth.

As a man or as physician, educated in the progressive ideas of our day, I should wrong myself too much not to know or acknowledge, that criticism is the source from which emanates all truth; which consolidates the progress of ideas, and often reveals the incognito we are in search of. I, therefore, accept criticism as a precept, and allow it a wide margin, but it must be an enlightened and intelligent criticism, that aims at the appreciation of deeds, intelligently performed and with a sound knowledge of the subject in question. Scientific criticism not only exacts an intelligence *ad hoc*, but also demands a well cultivated intellect, possessing that fine moderation of speech and judgment which distinguish the man of science from the vulgar one, who is swayed only by passions both personal and ridiculous. For this obvious reason, I shall make no direct reply to the author of the article, who, being himself destitute of all theoretical and practical knowledge, accepts ideas from very unreliable and superficial authorities, hurls his awkward instrument at Dr. Andrei, to whom it could have no reference, and fortunately for my four eminent predecessors in the case, finds himself *hors de combat* from his own weapon.

Why did the juvenile hunt before getting license from authorities which a four month's memory would have given him? Would he assume the arrogance to write upon an obstetrical subject before consulting, among others, the great master, Sir Jas. Y. Simpson? Or did he make a mistake, and instead of going to Edinburgh, derive his knowledge second-handed in San Francisco?

I might have foregone all response, as the article of itself

judges the author, if I did not feel myself obliged to protest against the tenor of the article, which condemns the conduct of my colleagues; since chance alone called me to see the patient forty-eight hours before delivery had declared itself, and the woman so far gone that the choice of operation was already prescribed; unless it would have been preferable to let the patient die without delivering her, which the author of the article would certainly have done for fear of meriting the name of Greek, or a disciple of Aretea.

If I wished to reply in *extenso* to each sentence of the article that is before me, it would take up too large a portion of your journal.

In the beginning we are censured for performing an operation of old date, whereas it is a modern acquisition. We are censured for not having taken a measurement of the pelvis. This reproach reveals to us the originality of the author, and his practical sense. And of a truth, is it possible to have the courage to think, still more to write, that a surgeon could take a pelvic measurement, when called to see a woman already in labor for forty-eight hours, in a state of mortal exhaustion, the liquor amnii having been long discharged, pulse nearly imperceptible, temperature much diminished, features wild, the uterus so rigidly contracted as to fear its rupture, and the fœtal head already impacted in the pelvic excavation, with enormous sensibility and œdema of the external genital organs? It is folly! We are censured for having multiplied the operations and prolonging the sufferings of the patient, whereas she was delivered in half an hour.

We are censured for having had the hardihood or stupidity to describe and issue a drawing of a cranioclast, other than that of Simpson. We are censured for having preceded the use of the cranioclast by perforation of the skull, an unnecessory operation with Simpson's instrument. We are censured for not having known how to use this instrument, that is to say, for having introduced one of the blades into the skull and the other along the external portion of the head; and finally, with the most innocent astonishment,

we are reproached for the death of the woman and for being the cause of it, even when the consecutive treatment was directed by Dr. Bowie.

In reply to this charge of accusations, I have only to bring forward the following extracts from Simpson's work, and prove to the author that if my observation has not taught him anything, the reply will teach him the truth of the adage:

"*Nullius addictus jurare in verba magistre.*"

HORATIUS.

*WHERE TURNING IS IMPOSSIBLE?

"All cases of labor, obstructed from defective pelvic space are not, of course, adapted for turning. The graver varieties of pelvic deformity arising from malacosteon and rickets, and indeed, all other morbid contractions of the pelvic canal in which any of the diameters are diminished beyond 2½ or 2¾ inches, forbid all idea of the operative delivery of a living child at the full time, either by turning or by forceps. Where the contraction is placed at the outlet as in funnelshaped pelvis, you can only try the forceps; you must not dream of having recourse to turning, for the operation of version is only to be thought of in those cases of obstructed labor, where the head is lodged above, or in, the brim of the pelvis, in consequence of some morbid contraction of that brim, and does not apply to cases where the head has already quite passed down into the pelvic cavity. In the cases I refer to, labor has been going on for a lengthened period before the arrival of the practitioner, the liquor *amnii* has been long discharged, and the uterus is contracted so firmly and adapted so accurately around the fœtus, that the simple introduction of the hand into the cavity of that organ is not unattended with difficulty and danger. Even in the deepest sleep induced by chloroform, this state of persistent tonic contraction of the uterine walls, still occasionally, though fortunately very seldom, presents an obstacle to the operation of turning, and in such rare cases, you afford your patient the best and almost the only chance of safety, by diminishing the size of the fœtal head, so as to permit of its passage through the brim."

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*Simpson's Gyneological and Obstetrical Work, N. Y., 1872, p. 517-520-525-529.

Conditions justifying the operative diminution of the Fœtal Head.

WHEN THE CHILD IS DEAD.

"You may be called to deliver a patient in whom obstructed labor has been going on for so many hours, that the child has at length succumbed under the contractile efforts made by the uterus for its expulsion, or the obstetric procedures put in practice for its extraction; and in such a case, it may be both easier for you, and safer for your patient, to break down the skull of the already dead infant, than to persevere in attempting to effect delivery by any other operative measures. In obstructed and protracted labors, the child, in a large number of cases, dies betimes under the compression of the head, body and cord to which it is subjected.

"During the seven years that Dr. Collins was physician to the Dublin Lying-in Hospital, one in every three of the children was born dead among the mothers whose labors were prolonged from twenty-five to thirty-six hours; one in every two when the labor was from thirty-seven to forty-eight hours in duration. Out of thirty-two children born in labors extended from forty-seven to sixty hours, twenty-one were dead, or two in every three; and out of fifteen labors allowed to run on beyond sixty hours, eleven were born dead, or four out of every five; a dreadful rate of infantile mortality from protracted parturition. Let me, however, remark in passing the maternal danger and mortality increase, also with the increased duration of the labor, with frightful rapidity, when the subject is examined on the large scale. Among the one hundred and thirty cases of labor protracted beyond thirty-six hours, which occured during Dr. Collins' mastership, twenty-four, or one in every six of the mothers died. But, I repeat, supposing you found in an obstructed labor that the child was already dead, the question as to the proper line of practice to be pursued then, resolves itself simply into this: By what means can the labor be terminated most speedily and safely? Craniotomy, indeed, as it has usually been performed hitherto, is by no means always a very expeditious operation; and statistics abundantly show that it is far from being a safe one, particularly when too great delay has been allowed to occur before its performance.

"In fact the danger to the mother attendant upon craniotomy, is, like the danger attendant upon delivery by the forceps and turning, and, to speak in more generalized terms, like the danger attendant upon all tedious labors, regulated in a great measure by the previous degree of

duration of the process of parturition. Among seventy-six cases of craniotomy performed by Dr. Collins, when the labor at the time of operative delivery was under twenty-four hours, only one out of nineteen mothers died; when the previous duration of the labor varied from twenty-four to forty-eight hours, craniotomy proved fatal to the mothers in one out of every eight; but when the labor had been prolonged already beyond forty eight hours, it was fatal in one out of every three cases. But the operation of cranioclasm which I venture to propose to substitute for it, will be found, I believe in many cases where the child is already dead, to be at once, more simple in its performance for the practitioner, and more safe for the patient, than extraction either by means of turning or of the long forceps."

CRANIOCLASM.

"As in the case of craniotomy, so in the case of cranioclasm, the operation may be divided into three, viz.: 1st, Perforation of the head; 2d, Comminution of the bones of the skull; and 3d, Extraction of the head and body of the child. The necessary armamentarium for attaining these objects is: 1st a Perforator (see Fig. 87), to open the head; and 2d, a cranioclast (see Fig. 88), to break down the skull and extract the head through the pelvis."

MODE OF OPERATING.

"After the first step, viz.: perforation, has been thoroughly accomplished in the way described, the next stage in the operation is:

Second—Comminution of the bones of the skull. In reducing and comminuting the bones of the cranium, the cranioclast acts in quite a different way. The cranioclast is of the usual length and weight of the guarded craniotomy forceps employed in British practice, being about thirteen inches long, five and a half inches from the tip to the middle of the button-joint; its outer blade at its broadest point, one inch, and its inner blade, of course, somewhat narrower; and the exterior of the length of the fenestra of the outer blade, about three inches. The instrument which I show you is modified, so as to attain, if possible, these objects more perfectly. Of the blades, the inner or smaller one is solid and convex, and serrated on the side by which it fits into the concavity of the other larger fenestrated blade. They have both a slight curve, to enable them to be adapted to the curved form of the bones of the cranial vault. The concave surface of the outer double or fenes-

trated blade, and the convex surface of the inner single, or solid blade, are serrated with relative transverse ridges and grooves, so as to make the hold of the instrument as perfect as possible without the fear of lacerating the included tissues. In using the instrument, the smaller solid blade is first introduced through the opening made by the perforator in the vault of the skull very deeply into the interior, and then the larger fenestrated blade being passed over the occiput outside the scalp, the two are made to lock, after they have been pushed in this position as far down over the occiput as they can be made to go; and then by a slightly twisting movement, first on one side and then on the other, the bone is at once and easily broken across, or dislocated, behind the foramen magnum. This may sometimes be all that is required. In other cases it will be necessary to pass round the blades of the instrument over the parietal bones, so as to loosen and comminute in the same way the temporal bones; or it may be found advisable to break away the frontal bones from their base, or from connection with the sphenoid. And that such separation of the bones at the base of the skull, can take place, is abundantly shown by the preparation which I show you of the skull of a fœtus delivered by means of cranioclasm."

As I do not wish to encroach further upon your journal, or to prolong this discussion, I shall limit myself to the observation that craniotomy and cephalotripsy are operations accepted and practised in Germany, as shown by the works of Scanzoni, Kilian, Leissing, Kiwish, Braun, etc. Churchill's work and his conclusive statistics may be consulted with benefit. Among American authors, we have Byford, Meiggs, King, etc.

To cut the matter short, there is but one point in the article that seems clear to me, and that is a low personality directed towards myself, but unfortunately, with a very small show of civil courage; for admitting the force of the argument brought forward, he fails to perceive that his assault is really made upon the four physicians who preceded me in attendance and responsibility.

Gentlemen, it is not worthy of further notice, and I would conclude with the words of the great poet:

"*Non ragioniam di lor, maguarda e passa.*"

—Canto III. INFERNO.

"Speak not of them, but look and pass them by."

—Canto III. INFERNO.

Ophthalmology and Otology.

ART. XI.—*Souvenirs of the Congress of Ophthalmology at London*, 1872.

[Concluded from page 747, Vol. I.)

Concerning the operative procedures for the extraction of cataract, the English oculists, when interrogated have given us the same response we have received in many other places: "We operate by Græfe's method, but we have modified it." To such a point is this carried that the *classical* peripheric method hardly receives entire respect anywhere. Every body wishes to do better, an indication of at least mitigated satisfaction. Thus Critchet makes the linear extraction much more in the cornea in order to avoid lesion of the ciliary body; he holds to this principle, and adheres to the section which he had formerly practiced with the bent lance-shaped knife, the section which gave the *elan* to the method called *linear* (generalized), if it did not furnish the idea of it, and of which he has a right to claim the greater part of paternity; only he makes it at present with the linear knife. We have already mentioned above, that he divides his favors between this method and the extraction by the *small median flap*, of which, in such hands, the future is assured.

Bowman, the king of operators, seems to practice the most absolute eclecticism. It is for each case, so to speak, that he determines the method to apply.

We have even seen him—*horresco referens*—make several extractions by the method with the large flap, without the least iridectomy, in a word, by the *classic* extraction, and he did not blush the least in the world. But, what marvelous hability!

Is the era of the peripheral extraction so soon ready to expire? At least criticisms accumulate about it to such an extent that the thought may be permitted. The method is not proof against inflammatory accidents, such as iritis and especially cyclites. Now, even at the thought of traumatic phenomena in the ciliary region, does not the spectre of sympathetic ophthalmia appear? It has been repeated that this affection only appears after accidental injuries and never after regularly conducted operations, but this is one of those enormities which the inapt do not contest among themselves—scientifically.

Thus on one hand, the extraction by the large flap with its cortege vis, hernia of the iris, suppuration of the flap, ophthalmitis, consecutive treatment painful and subjugating even to punishment; of which, it was believed, we were to be forever disembarrassed: on the other, the linear extraction, with the phantom of sympathetic ophthalmia, consecutive iridocyclites, iridectomy, etc., etc. How shall we chose, and what shall we do? In such conjecture one may call to one's aid a third evil (*larron*), all ready to take its place under the sun, *the extraction by the small median flap*, which promises an easy expulsion of the crystaline, impossibility of prolapses of the iris, rare and inoffensive anterior synechias and a pupil intact. Let it be tried, and let us take our turn.

One question remains to be studied: the extraction of the anterior capsule before the expulsion of the crystalline. When the capsule is opaque, hard and corrugated it may be seen and may be seized by the pinchers without much difficulty; we have seen Critchett make one of those eliminations, previous to the expulsion of the lens, with the greatest success. But where it is transparent it is difficult and the problem still awaits a solution; numerous instruments to this end have been conceived. Among others the forceps (*la greffe*) of Perrin, which its inventor defends with a convincing energy, but which he was not able to submit to the Congress, finding it impossible to attend the session. However it may be, being in such hands the solution is not distant. After cataract the conical cornea occupies the most particular attention, and the material was not wanting, for more than twelve cases of this happily rare affection were collected for the occasion. The question is to cause a loss of substance to the thinned and salient part of the cornea which shall be susceptible of solid and regular reparation.

The excision of a flap occupying only a part of the thickness of the cornea, followed by cauterization by the nitrate of silver, after Græfe's method, the removal of a central portion of the cornea, by means of the trephine (Bowman) giving place to a circular loss of substance, and afterwards to a cicatricial retraction not predominating in any meridian, and finally the excission of a small central flap of the entire thickness of the cornea in the form of a cross, such are the measures being attempted, and of which, a not distant future will give us the results. As far as can be determined, this latter method gives the most encouragement, especially if we add to it; according to an idea suggested to us, the suture by means of fine needles such as are used by M. Williams (of Boston) for the coaptation of the wound after extraction by the large flap.

We would have a long catalogue if we were to cite all the operations performed before us, with the names of the operators. We will not undertake this detail, which would expose us to many omissions. By the side of Messrs. Bowman and Critchett we have seen Moorfield Streatfield, whose reliable hand imparts to the knife in all corneal actions, a saw movement, peculiarly his own; M. Cowper, and a whole phalanx of other able practitioners, in other opthalmological establishments a goodly number of operators who are not inferior to any, and all of whom have profited by the vast experience, and a material of incredible wealth placed incessantly at their disposition. Operations are made elsewhere as well as in London, but nowhere do they operate better or more frequently. We can also assert without fear of contradiction, that London is to-day the centre of ophthalmological practice. It has been well said, and the rumor was circulated with some complaisance to many, that if the English ophthalmologists are incontestably the most proficient, they give less attention than those elsewhere to the after treatment so essential to the patient. Is this reproach well founded? We wished to have an impartial opinion, and have convinced ourselves that if more than one of these great oculists often omit to see his patient again on the day of the operation, or perhaps on the following one, no disadvantage results. In all the ophthalmological hospitals of London, an able physician lives in the establishment, and under instructions from the chiefs of the service, attends day and night to the bandages and other eventualities which may occur. This criticism is, therefore, absolutely devoid of foundation. It is true, nevertheless, that our colleagues contest generally, the utility of the bandaging, and of the frequent examination of the patients operated upon, and that they act accordingly. "Is it really useful, and is not rather dangerous—many among them remark—to cover the operated eyes with those complicated and troublesome apparatuses, which, if a turn of the bandage is applied too loosely or too tightly, will soon be a torture and a danger for the patient? Is not a simple layer of cotton or softened lint, preferable in most cases? What can one say, on the other hand, of those examinations of the globe by natural or artificial light, with the naked eye or with the lense, which it is recommended to make during the first twenty-four hours?

"What instruction can be derived, and is it not a thousand times better, especially if the condition of the lids does not reveal any abnormal process, to leave the organ carefully abstracted from all luminous sensation? Admitting for a

moment that this examination may have revealed an iritis, or a commencing suppuration of the flap, what will you do, which has not been already amply indicated by the examination of the lids, the condition of which will suggest to you always, that some complication has appeared? The information you may derive from it, and which may be available to direct future action, will never compensate the damage which may have been caused by the access of light to eyes rendered exquisitely sensitive, and which instinctively reject this immoderate excitement, as well as the laborious manœuvres which follows this intervention?" We give this opinion for what it is worth, and feel that it is worth a great deal.

We have heard it remarked that we should not multiply our asssemblies; that it was advisable before again meeting to allow science sufficient time to reveal itself by new discoveries, in order to add attractiveness and interest to our Congress.

What an error! Those who argue thus, forget that science advances otherwise than by sudden leaps; that its daily march gives it incessantly a healthy impulse; that if it is useful to learn new things, it is not less necessary to forget old ones long since discarded; that it is essential to pass through the filter of periodical discussion certain practices, and aphorisms, too easily accepted and recorded. Now, what place is more appropriate for this retrospective research than that of our Congress? Is there one among us who has returned from London—where, however, no grand innovation has been inaugurated—without richer and surer scientific thought? The object of the Congress will be realized, said, at the opening of the session, the eminent gentleman who so magisterially directed its labors, if on parting we can prove the essential advancement of our branch, and if the list of our personal acquaintances is enlarged. Now this has been accomplished. Then let us assemble often, for we have all to gain thereby. If it is permitted to emit a personal opinion on this great question, let us meet two years from now at Madrid with the concurrence from of our German colleagues. True, we will not find there the rich material which we have just left; but that which we will certainly witness is the spectacle of an intelligent and original practice suggested, probably by certain pathological cases which are not to be found elsewhere for, whatever may be said, every nation, or rather every climate, has its own category of affections which should be studied on the spot.

That which we will also certainly find there, on the part

of our Spanish colleagues, is an earnest welcome to the solid instruction, to the warm heart, to the active intelligence which associating itself to the movement of a nation that every day makes a step forward in the path of progress, have in so few years, drawn ophthalmology from the shadow where it had slept so long and which to-day, has nothing to envy from other nations. Thus much for the scientific part of the Congress. What shall we say of the other, of that which passed at the hearth-stone of British hospitality? What words can do justice to the tender solicitude which has surrounded us, the welcome so cordial and generous to this great city which many of us visited for the first time, and which we found nevertheless peopled with friends anxious to cause the time to pass pleasantly and agreeably for us? We can never forget it. Let us offer from the depth of our hearts, to our hosts of yesterday, to each of whom we are equally indebted the expression of our sincere gratitude. But let us address a special mention to the amiable and eminent gentleman who has taken the initiative in the call to which we all responded, who had promised to receive us well, and who has so thoroughly kept his word, to our dear confrère Crichett, *to the President of the Committee of Organization*, who impressed with this same adage "*Noblesse Oblige*" (Nobility binds to noble conduct) so happily made use of by our illustrious President, has without ceasing paid, from his time, from his purse, and from his personal comfort. To him the most tender of our grateful remembrance."

At the banquet a last toast, reserved for its completion, was about being offered to him, when by a misunderstanding the session was prematurely interrupted, it was as follows: *To the operator adroit among all and to the best of men.*

Acute Glaucoma.—Dr. LE FORT read a paper on this subject before the medical section of the French Association for the Advancement of Science at its late meeting in Bordeaux, in which he combated the theories on Von Græfe and Hancock, and rejected the therapeutic means proposed by these two celebrated occulists—iridectomy and the section of the cilliary muscle. According to Dr. Le Fort, acute glaucoma is anatomically characterized by a veritable dropsy of the serous tissue which separates the choriod from the sclerotic. He showed how this lesion explained all the symptoms of acute glaucoma; and he prefers, as a means of treatment, the sclerotical paracentesis of the eye. Twice already this method has been employed by him, and it has been followed by a very prompt and happy result.—*Brit. Med. Journ.*, Sept. 28th, 1872.

ART. XII.—*The Value of the Ophthalmoscope to the General Practitioner.* By B. JOY JEFFRIES, M. D., Boston. Read before the Massachusetts Medical Society, June 4th, 1872.

I trust time will prove I am correct in saying that before ten years shall have elapsed the professors of theory and practice in our best medical schools will teach the use of the ophthalmoscope as now they do the stethoscope. This, however, will not be so very rapid an advance, since a generation will then have passed by, from the time when Prof. Helmholz so modestly placed before the medical and scientific world the invention of his genius. The value of this invention to the ophthalmic surgeon need not here be dwelt upon, since it is now, of course, universally recognized that his specialty could not be practised without its aid. I may say of it, as I have elsewhere of the life and labors of the late Prof. Graefe, namely, that it has done very much to turn a doubtful specialty into a science.

What I desire here to point out is the value of the ophthalmoscope in general practice, and I cannot, perhaps, do this better than by briefly speaking of the diseases in which it affords us an additional and valuable means of diagnosis, without entering into the detail of how and why it does this. It will not be necessary either to enter into any discussion as to exactly how reliable the knowledge we obtain is, or rather how much may be deduced from the symptoms we can observe and group together, because the whole study is at present comparatively new and yet in its infancy. Certainly, a wide field for observation and thought is here rapidly opening before us, and busy workers are already in various parts of the world engaged in general ophthalmoscopy. As the optic nerve entrance and retina have so often been likened to a portion of the brain itself which the ophthalmoscope places directly under our eyes, I will commence with the cerebral affections in which this invention helps us out in our diagnosis. At present, the lungs and heart may as well be studied and their diseases treated without the use of the stethoscope, as affections of the brain and nervous system without the employment of the ophthalmoscope by the specialist in this department. I do not, therefore, as is seen, propose to give all the ophthalmoscopic signs or symptoms, or discuss them, but simply point out how and when the eye mirror can help us and in what affections.

Epilepsy.—Here the ophthalmoscope is hardly needed for diagnosis. From recent observations of patients during the fit, it would seem, however, as if the mirror might some day trace out the cause of the malady.

Chorea.—Here, again, nothing was at first seen, till Dr. Hughlings Jackson discovered signs resembling embolism.

Mania and Dementia.—Ophthalmoscopic signs are frequent and numerous, and already so classified as to assist us in the diagnosis between organic and functional disease.

Tubercular Meningitis.—There is now conclusive testimony that the mirror will not only assist in deciding, but give us very definite knowledge of just those cases of meningitis where the general symptoms are inconclusive. This I mean entirely aside from the deposits of tubercle seen in the choroid by the ophthalmoscope.

Meningitis with Fevers, Pyæmia, etc.—Here the mirror signs are of great value for differential diagnosis, and the study of the amauroses accompanying or following blood-poisoning and the exanthemata has already furnished us with some definite results.

Syphilitic, Rheumatic, Alcoholic and Traumatic Meningitis do not so often afford us mirror signs. In the first, however, we have so much specific interference with nerve and retina as to point to the latent cause.

Hydrocephalus affords us marked optic nerve changes, even when the child perhaps may only be regarded as stupid or slow in learning.

Tumors within the Cranium.—I mean enlargements, thickenings or growths occupying the space within the cranial walls. It was long ago noticed that these caused peculiar changes in the optic nerve and the retinal vessels. These changes have been and still are the subject of close and careful observation for practitioners who have used the ophthalmoscope in the study of mental or cerebral diseases. But even they, as well as others, are, so to speak, in the collective and recording period. This will be readily understood when we remember that it rarely occurs for a patient with cerebral tumor to remain very long under one physician's care, even if an expert with the eye mirror. Post mortems are also rare in these cases, so that but few medical men have frequenty examined a case with the ophthalmoscope during life, noted the changes, and found after death exactly to what alterations in the brain these were due. Hence the value of every observation being truthfully recorded, however slight the symptoms may have seemed. These collected records will bye-and-bye lead to truth and discovery. If, now, I am directly asked,

"Can the ophthalmoscope tell us anything about tumors in the brain?" I should reply, it certainly can, but do not suppose it will entirely supplement careful and diligent study of all other symptoms and good common sense reasoning. The stethoscope does not tell us much, as it gives us a greater variety of data to argue from, a larger field of symptoms. Remember how long it has been before the microscope regained its proper position in medicine, lost because it could not answer of itself with truth and authority whether our patient was to die of cancer or tubercle, in the hands of those who rather expected to see the diagnoses and prognosis written out on the slide at the side of the specimen.

General Paralysis.—Various observers are agreed that decided and definite ophthalmoscopic changes are visible in the optic disks of a kind we see where what is called *white atrophy* is going on.

Spinal Affections.—Here, again, we have the eye mirror assisting us in diagnosis, and, to an extent, perhaps, even locating the seat of injury or disease.

Bright's Disease.—The profession now pretty generally knows that inflammation of the retina occurs in this disease of the kidneys, accompanied by more or less loss of sight. Will the ophthalmoscope help us any in diagnosis? Other appliances and methods of test will undoubtedly tell us our patient has Bright's disease, but the mirrer alone will prove to us that the failure of sight is due to this affection. Not unfrequently, however, the ophthalmic surgeon sends to the general practitioner a patient with this disease, who applied solely on account of failing vision, that being to him his first symptom. The retinal changes are so marked as to be very readily seen and recognized as such.

Leukæmia presents very peculiar and interesting changes in the fundus oculi, the study of which seems to be opening to us some new and more correct views of the disease itself.

Syphilis.—Well as syphilis is known to affect the anterior portion of the eye in the form of iritis, even specialists in the department have remained unfamiliar with the changes in the optic nerve and retina, visible to the ophthalmoscope, some of which afford us very strong points of both diagnosis and treatment.

Diabetes.—It may occur that retinal trouble will induce a person to first apply to the specialist, when examination of the urine shows the presence of sugar, and the diabetic patient is sent to his own family physician for care and treat-

ment. I mean that retinitis may be a marked symptom to the mirror, before the patient's attention is called to the quantity or quality of his urine.

Poisoning from Alcohol.—Loss of visual power is well known and recognized in habitual drunkards. Amblyopia *ex abusu* is one of the ophthalmic surgeon's headings. The mirror shows us the cause and warns us as to diagnosis.

Poisoning from Tobacco.—Several good observers and careful and truthful recorders have seen ophthalmoscopic changes in the optic nerve which are gradually being recognized as directly caused by the use of tobacco.

Poisoning from Lead.--The eye suffers in several ways from lead poisoning. Inflammation and subsequent atrophy of the optic nerve are directly seen by the mirror to confirm our diagnosis and shape our prognosis in this insidious and dangerous malady.

Menstruation directly affects the visual power, which the mirror shows to be due to visible changes in the nerve and its bloodvessels.

Diseases of the Heart and Bloodvessels.—Here every day is proving to us that the ophthalmoscope is of great value in diagnosticating or locating grave lesions of circulation, aortic aneurisms, for instance. In the retinal circulation we have veins and arteries side by side with the heart's impress, so to speak, on both systems of bloodvessels.

I have purposely confined this list to those general or local affections in which the mirror can be of real assistance to us in diagnosis, as reports from various observers the last few years have amply proved. To discuss precisely how it assists us is not, as I said, a part of my paper. The recent monographs on this subject reach several hundred pages, open to all for study, and the reader's attention must have been frequently arrested in the medical journals lately by constant reports of ophthalmic signs and symptoms associated with very various diseases. It will thus be seen that the eye mirror is being gradually wrested from the ophthalmic surgeon as a special instrument for diagnosis, so that it cannot be long before it is at the side of the stethoscope on the table of the general practitioner. Specialists in mental diseases are now hard at work with it, conscious that without its aid a large and important group of symptoms are beyond their reach. The report of a cerebral affection, without the ophthalmoscopic signs would be now regarded much as the report of nephritic trouble without the urine analysis.

But now, aside from the nicer points in medical ophthalmoscopy, to be appreciated and used in diagnosis perhaps still a long time only by those familiar and expert with

their presence and meaning, is the eye mirror of as direct practical value to the general practising doctor, as the microscope in determining vegetable parasites or urinary casts? I would reply, most certainly, and especially to all at work away from centres of population, where, till now, ophthalmic surgeons alone find enough remunerative work, and to whom a patient may be readily sent. Let me here give a few examples in proof of my assertion. A patient awakes in the morning, seeing only the half or a portion of an object. This is a natural cause of fright to him and to the physician called in, who endeavors hurriedly to recall the cerebral troubles in which half vision occurs. At last, however, his wit is baffled, and the terrified man or woman is sent, perhaps hundreds of miles by stage-coach, steamboat or cars, to some ophthalmic surgeon. A glance with the eye mirror shows him a partially detached retina, to become wholly so, very likely, by the necessary journey home. Surely, it would have been worth something to that village doctor, and still more to the patient, had the former been able to look into the globe and diagnosticated what is as apparent as a torn or rumpled shirt-bosom, namely, separation of the retina.

Cataract.—I should be afraid, almost ashamed, to say how many times this has been the diagnosis brought me by a patient who had indelible opacities of the cornea, but whose crystalline lens was perfecty transparent. A declaration of inability to remove the *scum* by operative interference often giving rise to a doubt of my professional attainments, and not unfrequently to an expressed wish to be told of the locality of some other *institute*. A very few minutes devoted to the use of, and as many seconds' glance at such opacities and clear pupil with the ophthalmoscope, would have avoided a disagreeable exposure, not always to be kept from intelligent and shrewd American men and women.

Injuries of the Eye.—It does not require a very dexterous use of the ophthalmoscope to detect a foreign body like a piece of metal or stone in the crystalline lens, or within the globe, in vitreous or retina. Surety of such presence or absence is certainly invaluable to the doctor, and will well repay the time spent in learning something at least about the eye mirror and its use.

Hæmorrhage, retinal or otherwise, of traumatic character, is, so to speak, a coarse object readily seen by the ophthalmoscope. To be able to tell the patient whom it has temporarily blinded that he will again see when it has become absorbed, cannot tend to hurt the practitioner in the eyes of his village clients, even if they persist in attributing the restored vision to the placebo given.

When once you have learned to see and recognize the healthy optic nerve entrance into the eyeball, through the eye mirror, you cannot fail to diagnosticate complete white atrophy causing total amaurosis, and need not send the patient miles from home to learn from quasi-oracular lips that they are and will remain blind.

Retinitis Pigmentosa.—As you are probably well aware, there is a form of disease causing gradual blindness culminating in total loss of vision at about 45 years of age, the essential element of which is a peculiar stellate deposit of pigment in the retina in shape like bone corpuscles. Once seen it will ever after be recognized, or perhaps equally well from having seen an ophthalmoscopic picture of the interior of the globe. Why should not the village doctor see this deposit and tell the patient of his impending blindness? When he knows that blood relatives have married, he may even look for it in their offspring, since some 25 per cent. of persons with retinitis pigmentosa are found to have parents who were blood relatives, as first cousins, etc.

Railway or other Injuries.—When these affect the eye, and the case, as often happens, comes into court on the question of damages, an ophthalmoscopic examination may readily decide whether the patient can see or not. An ophthalmic surgeon is not always to be obtained just when wanted. Any surgeon after a few weeks' work with the ophthalmoscope might easily recognize gross appearances in the fundus oculi, enabling him to give a positive opinion that the plaintiff was blind, and explain why.

Glaucoma.—I saw, many years ago, one of the best ophthalmic surgeons in Europe mistake cataract for this disease. The reverse too often happens, for the reason that the pupil in glaucoma has a yellowish-green look, like some stages of cataract. Now a single glance with the ophthalmoscope will prove to us by the red reflection from the bottom of the eye that the lens is comparatively transparent and there is no cataract, even if the hardened globe, dilated pupil, and usual great pain, has not already suggested glaucoma. The necessary immediate operative interference of iridectomy and its success in restoring vision need not here be dwelt upon. I would simply call attention to the fact that very little knowledge of the use of the ophthalmoscope may save the practitioner, if he cannot himself perform iridectomy, the mortification of not having called upon some one who could, at a time when success would have been insured. Glaucoma causes cataract finally, which iridectomy in season would have prevented.

Dislocation of the Crystalline Lens.—This not infrequent accident from injury, even when very slight, as from sneezing, naturally produces great disturbance of the refraction of the eye. The displacement of the lens is most simply and readily seen and explained by the ophthalmoscope. A patient may thus be saved being sent, perhaps a great distance, to an ophthalmic surgeon who can say no more than the doctor at home could have, if he had troubled himself to become but a little posted in the use of the ophthalmoscope.

I have thus briefly shown you the value of the ophthalmoscope as a means of diagnosis to the general practitioner. And this in two ways: first, as an additional means in some of the most difficult cases we have to deal with, viz: affections of the brain and cord. You must have noticed that for the past few years there have been frequent articles in the medical journals from the pens of specialists now at work with the ophthalmoscope in diseases of the nervous system. As an ophthalmic surgeon, I welcome their labors as relieving us of a duty hitherto thrown upon our hands, but which we were naturally not in the true position to discharge to our own or the patient's advantage. For instance, some one is sent to me with trouble of the visual powers, with a request from the physician that I should determine what affection the ophthalmoscope will point out. I regret to state that as a general thing this is unsatisfactory, because I see the patient but once or twice, when I may detect *nothing positive*, and so report. Were they, however, constantly under observation, then the eye mirror would give very valuable hints for diagnosis and prognosis. It is not, however, an ophthalmic case; perhaps it is a supposed tumor of the brain. Here, then, most certainly, the general practitioner should be able to use the ophthalmoscope and diagnosticate from what he sees. The time is rapidly coming when at least those who pretend to treat nervous troubles must be thorough ophthalmoscopists, or as is just, take rank and place behind those who have mastered the eye mirror and become familiar with its revelations.

Secondly, I have brought to your notice but a few of the many instances where but a slight acquaintance with the use of the ophthalmoscope will be of infinite service to the busy doctor out of reach of the centres of population where special surgeons settle. You will all agree, I think, that it pays to have a microscope and use it for diagnosis. A little familiarity with the ophthalmoscope will soon convince you that it pays to have this instrument and be able to employ it to help out your diagnosis, or perhaps settle your case

at once. Every one near you affords material for the observation of the healthy optic nerve and retina; and ample material and opportunities exist at all the eye infirmaries for the familiarizing yourselves with morbid appearances. You need not be a specialist to use with great satisfaction and profit the eye mirror, any more than to employ the laryngoscope, the endoscope, or the sphygmograph. Perhaps we all do not realize that the laity are learning the use of the ophthalmoscope simply as a scientific instrument. If you will visit the physical laboratory of the Institute of Technology in this city, you will see there a large hall filled with students at work at separate tables, each solving practically some physical problem with the instruments in his own hands. At one table you will find the ophthalmoscope, and the student's problem is to learn its theory and use, and finally draw a picture of what he observes through the instrument in the model of a human eye, the interior of which he can see in no other way than by means of the eye mirror he has before him. Now that the student may hereafter be the engineer employed to survey and lay out a railroad through your town or village. Would it not be a little mortifying if he could look into the eye of your patient, one of his workmen, and tell you the piece of steel was still bedded in the globe, whilst you had promised the man his future sight because you judged the portion of metal had flown off from the eye and not penetrated it.

Finally, I would draw your attention to what may have escaped observation, namely: that the ophthalmoscope next to the microscope has done so much toward elevating and forwarding medical study and practice, by offering the means for and requiring better, closer and more truthtul observation, more careful and more thoughtful deduction from such observation, and hence more intelligent and successful practice. We must all remember that the best distinction we can show the community between educated physicians and the host of quacks and pretenders is the wide gap between their ingorance and our striving for knowledge and truth. The wider and deeper we make this gap, the easier it will be for us to gain the confidence and retain the respect of our communities. The ophthalmoscope should be a powerful adjuvant in this.

Of the many books and various forms of instruments, as well as methods and means of study in ophthalmoscopy, I did not propose to speak, and therefore have said here nothing concerning them.—*Boston Medical and Surgical Journal.*

Editorial.

On looking over a copy of the "*Pacific Churchman*" of December 19th, we find among religious items a notice of thirty lines in length, devoted to the praise of "Hostetter's Stomach Bitters." This does not appear as an advertisement in the columns devoted to that purpose but, evidently, as a piece of religious advice or information and, being in a paper devoted to the interests of the Episcopal Church and edited by one of the priests of that denomination, it must be supposed that the consumption of that form of stomachic by the members of that Church, is particularly to be desired by the spiritual teacher to whom is entrusted the posting of the faithful on religious subjects and matters pertaining to their soul's salvation.

We extract a sentence or two from the notice, to show how much stress is laid on the necessity to every one to read the "Almanac" advertising, and use the "Bitters" advertised.

"All who wish to understand the true philosophy of health, should read and ponder the valuable suggestions it contains. In addition to an admirable medical treatise on the causes, prevention and cure of a great variety of diseases, it embraces a large amount of information interesting. etc. etc. * * * * * * *

"The nature, uses, and extraordinary sanitary effects of Hostetter's Stomach Bitters, the staple tonic and alterative of more than half the Christian world, are fully set forth in its pages, which are also interspersed with pictorial illustrations, valuable receipes for the household and farm, humorous anecdotes, and other instructive and amusing reading matter, original and selected. Among the annuals to appear with the opening of the year, this will be one of the most useful, and may be had for the asking. The proprietors, Messrs. Hostetter & Smith, Pittsburgh, Pa., on receipt of a two cent stamp, will forward a copy by mail to any person who cannot procure one in his neighborhood. The Bitters are sold in every city, town and village, and are extensively used throughout the entire civilized world."

We have assisted in advertising this form of "Bitters" by the above quotation, not that we wish to endorse them

although they are so highly recommended by the organ of the church to which the Editors of the LANCET owe allegiance, but to comment on the subject matter of an item published in a paper devoted to a "speciality," and that item, expressed in high flown language endorsing a subject not bearing in the least on that specialty.

The article in question, does not appear among advertisements nor does it bear any evidence of being contributed by an agent of the "Bitters" and paid for as are similar notices in other papers; in fact the speaking of the "Almanac" as "*one* of the most useful" and not "*the* most" is proof that the "modesty" of the Proprietors had nothing to do with penning of the notice. We must, therefore, conclude that it is the composition of some one connected with the *Churchman*, and as the "Bitters" are of such universal use to cure, we may suppose all "the ills to which flesh is heir," we must cordially recommend their large consumption to the writer of that article, for he evidently suffers greatly form *assification* of the head!

We ask, in all seriousness, what does he know about "an admirable medical treastise on the causes, prevention and cure of a great variety of diseases;" has he an "M. D." after his name as well as a "Rev." before it; what makes him a judge of the physical requirements of the sick; what authority gives him the right to say to all who "wish to understand the true philosophy of health," that they must "read and ponder" the "Almanac;" who or what power, confers on him the authority to declare a two cent (currency at that) advertising medium as equal to a course of medical lectures and hospital cliniques to teach the philosophy of health or disease; what does he know by experience or study of the "extraordinary sanitary effects" of a quack medicine, the composition of which, even he cannot give?

The Episcopal clergy are generally considered men of cultivated minds, and liberal education but, here is one who recommends as instructive and amusing reading matter, "a cheap annual advertising sheet, whose sole object is to praise the "Bitters" it represents and whose sole patrons are ignorant persons in sparely settled districts, dyspeptics with stomachs

ruined by violation of the laws of health, and who cannot govern their appetites and let nature work their cure, and old topers who require some powerful stimulant on getting up in the morning, before their used up digestive apparatus can be made to face a plain meal.

The cultivated public can judge of how much value to place on a medical opinion, given by a non-medical man of professional education, who recommends as a library of "instructive and amusing" reading matter, a two cent almanac—instructive, as to laws of health; amusing, on account of stale anecdotes and dry "jokes," told with not half the zest that a third class negro minstrel performer would give them! What would he say if medical men or lawyers, should attempt to praise the utterances of some illiterate "free thinker" or inventor of some new religion as proper teachings on the subject of our soul's salvation? His reply would probably be what ours is to him, "mind your own business, and pay attention to that profession or calling for which you were (supposed to be) educated and qualified." If without knowing anything of health or disease, or the component parts of advertised nostrums, he is entitled to speak *ex cathedra* on the subject, why not go farther and cordially puff "Pills for female weaknesses," or in other words, "abortion producers," praise "Pile oil," "Preventives against Conception," "Itch ointments" and the like, and place the favorable notices in the columns of the *Churchman*, as "instructive and amusing reading matter," to be introduced into families as religious items in a church paper.

The fact has long been apparent to medical men, that "patent medicines" and all other medical (so called) improvements, are chiefly advertised in religious periodicals, and too often recommended by the clergy in published cards, that the mass of the people who look to those sources for teaching, buy and use these health destroyers on their recommendation, and that the chief source of gain to the proprietors comes from the ignorant who have a right to be taught differently. Men who have enjoyed a liberal education, and who should be the ones to value knowledge and

scientific attainments in their fellow men, are not those to whom we have a right to look to uphold quackery in medicine; a science the acquisition of knowledge in which, requires years of toil, mental as well as physical, and years of experience, which labor should be encouraged and supported by those whose labors in other fields of mental toil, we would think, should make them the hearty sympathizers and upholders of their fellow workers.

We have written the above not to criticise the clergy generally or religious papers, but to express our (and the profession's) strong condemnation of such ignorant endorsements of quackery, and the great impropriety of using the influence of the religious press to mislead the public on a subject of which it also is ignorant.

Nearly all the so-called "Bitters" are composed of alcohol in some form, with the taste partially killed by vegetable bitter infusions. A man of a strong imagination may think them a substitute for liquor in the attempt to reform as a drunkard, but many more men have them to thank as the means of their becoming drunkards. A strong recommendation to use them as the "staple tonic and alterative of more than half the Christian world," *may* bring some heavier responsibilities than the writer of the above puff would wish to shoulder.

An Outrage.

In the LANCET for September last, we spoke of the peculiar arrangement for providing the State Deaf, Dumb and Blind Asylum with medical treatment, and congratulated the profession that, at last, tardy justice had been rendered and a respectable and competent practitioner appointed.

It seems that this status was not to be allowed to remain, and on the 6th inst., a meeting of the directors of the institution was held, the office of Physician declared vacant, and an irregular practitioner elected to fill the vacancy caused

by the "removal" of Dr. Van Wyck. A slight reference to the operations of the present Board may explain part of the reasons why this change was made. Sad as it is, in every position to which a medical man may aspire in this country, the question of politics must enter, qualifications are secondary, personal feelings next in importance. The Board of Trustees were appointed by the last State administration and, of course, were Democrats. The Trustee who held the office of Physician was therefore politically qualified, but when he gave up medicine and went into speculations *he* appointed to do his work the only medical man in the city with whom he could consult (viz.: a regular graduate, turned apostate and with Homœopathist on his sign.) The Board did not elect this successor, the Trustee still held the office and the warrants were made out to him; number two, was therefore only in the office by courtesy and not by right; he was the family attendant of the President of the Board, the friend and homœopathic brother of one of the Trustees, that is all. The first time that a *full* Board met, the office of Physician was declared vacant because the only legally elected Physician could not or did not perform his duties, and Dr. Van-Wyck was elected.

Now here comes a point hard to understand. The President caused it to be entered on the minutes (the Secretary was the physician just deposed) that the removal was effected on "political grounds."

The Physician-Secretary-Trustee was a Democrat, Simonpure, and of the 'last ditch order,' *he* appointed as his successor a homœopathic Republican, who was dropped out of employment when the Democratic real incumbent made way for an allopathic Democrat, genuine and pure, and who was recommended as fully qualified to perform all the duties of the office by every regular physician in Oakland, *every one* of whom is a Republican. On what "political grounds" we ask is a Democrat removed to make way for a Democrat? The profession in Oakland would keep the political question quiet when professional qualifications *only* should be required, but hearing of that entry on the minutes they united in cordially recommending one not of their political faith, but possessed of every qualification necessary to dis-

charge of his duties, and in addition vote the straight ticket of the Board. There are some mysteries hard to fathom, and this is one. The reason given, on the minutes, for the change may be homœopathically true, but that is all; the truth is so feebly diluted that no one, not even the originator or writer of the "political grounds"entry, could recognize it.

That Board is queerly composed and conducted; it seems to be a Democratic-mutual-administration-aid-society. It is like the Ohio Regiment which organized and elected officers to command it, and then discovered but one member left to be "rank and file." The President was, of course, a trustee; another trustee was Treasurer and drew $500 per year, while an Oakland Bank was "fiscal agent" and did the work; another of the faithful was Secretary and Physician and drew $100 per month, while two remained "high privates" just to keep up the form of an organization and have material for the officers to preside over! At last one private resigned, and Governor Booth appointed another who, on entering his work to labor for the Asylum, found an intestine war absolving the meditations of the Board, and there being no enemy to fight—they were fighting each other. At last, the new member (tho' orthodox in politics was heterodox in medicine), took sides with the man who was deposed "on political grounds," and not realizing that there might be a difference between a man who had been elected and another who was only appointed, assisted in electing a Republican in a Board composed of five members, four of whom were Democrats.

Now the State Asylum is under the "professional" change of a man with whom we believe but one person in Oakland will consult. The genuine homœopaths repudiate him, (whether because his principles are to dilute or his knowledge not infinitessimal enough we do not know;) the female clairvoyant even, from whom he sought advice on different points, can not prophecy favorably enough to warrant a continuance of his acquaintance, while the regulars spurn him as an apostate.

In an emergency at the Asylum, before consultation could be had, there might be a chance to try the efficacy of

of that special prayer that Professor Tyndall does not think quite equal to science.

However, there are "wheels within wheels," and the Board is no more harmonious now that the Doctor question is settled, than it was before; the concentration of forces on that subject only smoothed the surface, below is still surging the ill-will that will again break out and continue to do so until Asylums, reformatory institutions, and public charities generally, are kept out of politics, and merit made the requisite for office therein.

In the column of *News and Miscellany* of the "MED. & SURG. REPORTER," Jan. 4th, we find the following statement:

"Three hundred women have made application to study medicine in San Francisco." This tremendous "no-such-a-thing," as a production of the Quaker City, excels anything even in the way of pumpkins or "big trees" that California ever produced.

When we read the paragraph it caused such a nervous shock that our cigar fell upon the table and we almost found it necessary to resort to a certain alcoholic stimulant much recommended on this coast to restore our shattered nerves to their normal equilibrium. However, upon serious reflection we remembered to have heard it stated by one of the college magnates here, that *three* women had applied for admission to the lecture rooms of one of our colleges, and, in view of this, the statement did not seem to be so very extraordinary after all, for, the story in starting from San Francisco had to make the transit of nearly 3,000 miles in order to reach Philadelphia, and consequently the mere numerical factor in this otherwise truthful story had only to increase by one every ten miles, which, after all would not be considered a fatiguing job for the passengers and employees of the road on so long and wearisome a journey.

Miscellaneous.

San Francisco Medical Society, January 14th, 1873.

Society was called to order by the President, Dr. J. F. Morse, and after an election of officers for the ensuing year, Dr. Whitney presented a heart which had been taken from a man who had died rather suddenly of what was apparently Angina Pectoris. The history of the case was somewhat as follows: Some weeks ago he had been exposed to violent sea-sickness, which continued without intermission two days, and after reaching land was subject to spells of dyspnœa which occurred during the first hours of sleep. Sometimes, after having slept only for a few minutes, he would awake in an agony of suffocation, and would call for air, at the same time complaining that his heart was large enough to fill the chest; the heart beats would be irregular, but after recovering from the attack, which generally only lasted a few minutes, he would feel very comfortable and would sleep quietly until morning. These paroxysms always left a terrible impression, and he dreaded them extremely. The speaker said that he had never seen the patient while under the influence of one of these attacks, and had examined him for the first time about two weeks ago. The patient supposed that he had been suffering from asthma, probably caused by the extreme exhaustion consequent upon continued vomiting. The doctor, however, diagnosed dilitation of the left ventricle, and supposed the muscular walls of the heart to be in a state of atrophic degeneration. By a *post-mortem* examination however, made to-day, nothing of the kind could be detected. The walls of the heart appeared healthy, but the left ventricle was much dilated, and the right ventricle on the contrary, much contracted. The doctor invited the members of the Society to examine the specimen, as he considered it a curiosity.

After some short observations by several members, Dr. Holbrook remarked that the case reminded him of a patient he had attended some time ago. A female, *aet.* 40, had erysipelas, which appeared on the little finger of the right hand, and gradually extended along the arm to the shoulder. The case progressed favorably under treatment until the fifth day. The inflammation was in the sub-cutaneous tissue, and was accompanied by much swelling. At 3 o'clock on the morning of the fifth day in the course of the disease,

she awoke almost in a state of suffocation, clamoring for air. Every assistance was rendered her by her husband and members of the household, and when seen at 7 o'clock or some four hours later, the pulse was scarcely perceptible, countenance pale, the dyspnœa very distressing, borders of the lips livid, and the extremities cold. This condition continued with slight increase in the severity of the symptoms, until her death at 2 P. M. of the same day. The treatment had been mainly diffusive stimulants and warmth. The patient had been considered convalescent, and had even mentioned that she thought the visits might be discontinued; but death occurring formed a digression from the rule referring to convalescents. What was the cause of death? It might have been thrombosis of the right heart, which interfered with the circulation in the lungs, or it might have been that the thrombosis originated peripherally; the broken up products of the inflammation being carried along the veins to the heart and thence to the lungs impeded the circulation in these organs, thus causing the dyspnœa; or a thrombosis might have reached the brain, and by its interference with the circulation there, have caused the difficulty.

Dr. Henry Gibbons, Jr., mentioned the fact which had come to his knowledge, that during an epidemic of erysipelas in the City and County Hospital, a number of deaths had occurred after convalescence was established. He did not know the alleged cause of death, but thought it probable that the cases occurring there might have been analogous to the one referred to by Dr. Holbrook.

Proceedings of the Alameda Co. Medical Association.

OAKLAND, Jan. 6, 1873.

Present: Dr. Van Wyck, President, Drs. Allen, Babcock, Bolton, Cushing, Gibbons, Holmes, Kittredge, Pinkerton, Sherman. Hon. Members.—Drs. Carr, Jno. Le Conte, Jos. Le Conte.

The minutes of the last meeting were read and approved. Dr. J. R. Bradway, of Oakland, was proposed for membership by Drs. Cushing and Kittredge. Under the rules, the application was ordered to lie over one month.

The chairman of the sub-committee on diseases, reported

for the month of Nov. 1872, a total of 15 deaths among the registered cases. The causes given were as follows:

Miasmatic	6	
Tubercular	5	
Nervous	2	
Respiratory	1	
Accident	1	15

The ages of decedents were as follows:

Under 5 years	3	
Between 5 and 10 years	1	
" 15 and 20 "	3	
" 30 and 40 "	1	
" 40 and 50 "	3	
" 50 and 60 "	4	15

It will be noticed that a large portion of the above were adults, and died from constitutional diseases.

Dr. Pinkerton reported from the committe on free dispensary, the following:

"OAKLAND, Jan. 6, 1873.

"Your committee appointed to deliberate on the necessity for a free dispensary for the city of Oakland, have had the same under consideration, and report: *First*, your committee deem it necessary that a free dispensary should be established for the benefit of the poor of this city: *provided*, the city furnish suitable rooms, medicines and all necessary appliances for such purpose. *Second*, that the physicians who are members of this association and practising within the city or township of Oakland, will unite in rendering professional services, free of charge, on certain days in each week, as may hereafter be determined.

(Signed) "T. H. PINKERTON,
"Chairman."

On motion the report was received, agreed to, and the committee continued to confer with the city authorities. The Treasurer made his annual report which showed a most favorable condition of the Society's finances. The report was received and accepted. The regular order of business was suspended, and the paper for the evening dispensed with. Dr. Babcock offered the following:

"*Whereas*, the practice of advertising in the lay press, by professional men, being liable to great abuse, being considered derogatory to professional dignity and, in the Code of Ethics adopted by the Ascociation, forbidden; therefore, be it

"*Resolved*, that the insertion of more than one's name,

title, place of business and office hours, in any advertising medium, will be deemed improper and irregular by the members of the Association who will regard, as deserving of severe censure any infraction of this resolution."

This was seconded by Dr. Cushing, and unanimously carried. The Association then proceeded to ballot for officers for the ensuing year, it having been first carried that the present incumbents continue in office until the close of this meeting.

The result of the ballot was for *President*, Dr. G. E. SHERMAN; *Vice President*, Dr. W. P. GIBBONS; *Secretary*, Dr. C. S. KITTREDGE; *Treasurer and Librarian*, Dr. H. P. BABCOCK; *Board of Censors*, Drs. KITTREDGE, CUSHING and FOX.

Dr. Bolton's appointment, to read a paper, was continued until next meeting. On motion, the association then adjourned to 3d of February, at 7½ P. M.

Subsequent to adjournment the members proceeded by invitation, to the residence of Dr. Van Wyck, the retiring president, where a sumptuous collation was provided, the discussion of which with the expression of sentiments of friendly and professional regard, consumed the remaining available hours.—ED.

The following is taken from the *Sacramento Union* of 18th of December. We are pleased that a Californian should have the credit for having originated such an important work, and hope to see it speedily inaugurated.

"SANITARY.—We see by late dispatches that a bill is about being introduced in Congress for the establishment of a national bureau of sanitary science, to be located at Washington, and to be a branch of the Interior Department. The bill provides for the appointment of a commissioner and assistants versed in sanitary science, whose duty it shall be to acquire and diffuse among the people useful information relating to the preservation of the public health, and aid in the establishment of sanitary and quarantine rules throughout the United States. The House Committee on Education and Labor, it is thought, will report favorably on the bill, and it is not improbable that it will pass both houses during the present session. To our fellow-

townsman, Dr. Logan, is due the credit of originating this important question. In his late report to the National Medical Association, published in the UNION in May, he detailed his views *in extenso* on the subject, and also went to Washington for the purpose of having the whole matter, as well as the establishment of a signal service station in Sacramento, submitted by our delegation to the action of Congress. It proved, however, too near the close of its session to accomplish the object in view."

We extract from the *San Diego Daily Union* of Jan. 1st, the following. The showing is certainly favorable for the preservation of health, and should make a sanitarium of the happy locality:

"*Climate of San Diego—Table of Temperature for One Year—Climate of San Diego and Other Cities Compared—A Remarkable Showing.*

"If there is any one thing more than another in which San Diego can claim excellence over its sister cities, either on the Pacific Coast or elsewhere in the United States, it is in the salubrity of its climate, invigorating to the most robust and giving health and strength to the invalid. Its atmosphere ever pure and fresh, free from the chilly fogs that materially diminish the attractions of localities situated farther north; its tropical skies, soft and clear as those of classic Rome, seldom beclouded excepting during the brief rainy season, and its cool, life-giving sea breezes, make it preëminently the most alluring sea-side health and pleasure resort on the continent. In this respect, as in every other, it gains in favor as it becomes better known. Undoubtedly, one of the chief causes of the healthfulness of the climate of San Diego is to be found in the evenness of the temperature from one year's end to the other. As will be seen by a comparison of the tables given below, this city triumphantly carries away the palm for equability of climate over that of any city of locality either on the Eastern seaboard or in the interior. Following is a table of the temperature of San Diego, as shown by the thermometrical observations taken by Mr. J. B. Wells, the Signal Service Observer of the War Department, stationed at this point. The observations have all been taken at the hours of 4.55 A. M., 1.55

and 8.55 P. M., such being the hours corresponding with those at which the observations are taken at Washington, viz.: 7.35 A. M., 4.35 and 11.35 P. M. Observations are taken at all the stations of the Signal Service throughout the United States simultaneously. The difference of time between this city and Washington is 2 hrs. 40 m. Annexed is Observer Wells' report:

"WAR DEPARTMENT, SIGNAL SERVICE, U. S. A.,
OBSERVER'S OFFICE, SAN DIEGO, CAL.

"*Table of Temperature*

"Showing the mean of the 4:55 A.M., 1:55 A.M. and 8:55 P.M. observations of the Thermemeter for each month, the monthly and yearly meen, maximum and minimum temperature, extreme range and maximum and minimum daily range during twelve months ending October 31st, 1872.

MONTHS.	Monthly mean of the 4:55 A. M. observations	Monthly Mean of the 1:55 P. M. observations	Monthly mean of the 8:55 P. M. observations	Monthly mean of the 4:55 A.M., 1:55 & 8:55 P. M. observations	Maximum temperature during the month	Minimum temperature during the month	Extreme range during month	Mean daily range	Maximum daily range	Minimum daily range
Nov. 1871	52.10	66.66	56.96	58.57	78.	41.	37.	14	25	3
Dec. "	51.70	64.51	55.16	57.12	81.	43.	38.	13	27	5
Jan. 1872	46.45	60.64	53.83	53.65	73.	38.	35.	14	26	5
Feb. "	48.86	61.58	53.45	53.96	68.	43.	25.	11	18	6
March "	50.74	63.29	50.06	54.69	71.	44.	27.	13	23	6
April "	50.01	62.66	54.76	55.81	74.	43.	31.	13	23	3
May "	56.12	66.32	58.67	60.37	83.	49.	34.	10	27	5
June "	60.03	71.50	60.14	63.89	83.	55.	28.	12	23	7
July "	63.25	73.00	64.83	67.01	75.	58.	17.	10	14	8
Aug. "	65.16	74.54	67.03	68.91	86.	60.	26.	9	15	6
Sept. "	61.13	73.00	64.40	66.17	80.	54.	26.	12	18	6
Oct. "	57.80	69.09	60.74	62.54	87.	45.	42.	12	31	7
Y'rly mean	55.11	67.23	58.35	60.22	78.25	45.5	30.5	12	22	5.5

J. B. WELLS,
Observer Signal Service, U. S. A.

"The greatest range shown in the preceding table between the monthly means does not exceed 15°. The maximum yearly mean has only reached 78.25°, while the minimum yearly mean temperature is no lower than 45.05°, making

the extreme range during the year only 33.02°. We have no record of any other place on the face of the globe that can boast of so equitable a climate. * * * * There is a comparatively slight difference existing between the minimum temperature of the coldest month—January—and the maximum temperature of the hottest month—August—the former being 38° and the latter 86°, making a difference of only 48° between the two extremes. At New York, it is by no means unusual for the thermometer to indicate a temperature of 10° below the freezing point during the winter season, while in the summer the mercury ascends to 104°, making a difference between the two extremes of 114°. The comparison between the extreme range of temperature in this city and New York, is as 48 is to 114. In St. Louis the highest temperature is 108°, and the lowest 15° below zero, being a range of 133°. In Chicago, the highest temperature is 102°, and the lowest 20° below zero, a range of 132°.

"These particular places have been selected for the purpose of showing that neither in the same latitudes, either on the seaboard or in the interior, nor in the great and thickly populated commercial centres of the country, does the same uniformity of temperature prevail as exists in this city. Viewed in any light or from any standpoint, whatsoever, San Diego's climate stands without a peer. Santa Barbara, which has been much lauded as a pleasure and sanitary resort, has the great drawbacks of keen, cold, biting north winds, and damp, chilly and penetrating fogs to combat against, both of which are foreign to this city.

"During the year embraced within the report of Observer Wells, the prevailing winds have been from the northwest, and have had a mean daily velocity of 158 miles, aggregating for the year 57,930 miles. The mean daily velocity of the morning and night observations was three miles per hour, and at midday thirteen miles per hour. These are interesting facts, showing that the force of the wind is at no time unpleasantly strong, while it is also strongest when most needed—when the sun is crossing the meridian.

"The rainfall during the past year was small, not exceeding, according to Observer Wells' measurement, six and one half inches. The present indications are more flattering, however, and give promise of an abundant rainfall during the present winter."

From the same paper we learn that the deaths for 1872 were only 39, a decrease of 28 as compared with 1871. This is the more gratifying from the fact that the population in

the last year was 3000; an increase of 700 over that of the preceeding year, in which there was the greater number of deaths. The County Physician, Dr. T. C. Stockton, reports:

"The total population of the county is a trifle in excess of 5,000, so that the ratio of deaths for the past year has been about thirteen to every 1,000 inhabitants. The ratio in 1871 was 17.38 to 1,000. This extraordinary decrease in the mortality is partly accounted for by the greater number of deaths by violence which occurred in the former year. During the year now ending we have recorded only three violent deaths under the head of gun shot wounds. * * * In 1871, five deaths were caused by dysentery, three by diarrhœa, and two by pneumonia, while last year no deaths occurred from either of these diseases. In 1871, there were nineteen deaths from consumption, while only sixteen resulted from the same cause last year. It is a noticeable fact that the deaths from consumption in both years, were of persons who came here in a far advanced stage of the disease, most of them arriving here only a few weeks prior to their death. The death ratio of this city bears a very favorable comparison with San Francisco, with a death rate of 21.4 to every 1,000 of its inhabitants; St. Louis, 21.3; Sacramento, 24; Philadelphia, 25.5: New York, 29.3, and New Orleans, 37.6."

We have made these copious extracts for the benefit of those physicians living out of our State, who are constantly pressed for statistics by those whose failing vitality admonishes them to seek an even climate, in the, too often, vain hope of longer continuing the struggle for life.

We publish the following from the Sacramento *Daily Record* of January 3d. That city has generally had the reputation for unhealthiness, but the figures for the year past show a remarkable degree of health. We were quite surprised to find the same to obtain for this city, yet the statistics given in the report of the Health Officer, left no room for doubt but that we resided in a salubrious locality, in spite of the efforts of the Supervisors and Street Com-

missioners to keep our thoroughfares in the filthiest possible condition. We must have statistics after all, to prove any facts in sanitary science, and we cheerfully aid in dispelling the unfavorable impressions some may have formed in regard to our metropolis.—ED.

"HEALTH OF SACRAMENTO."

According to Dr. Logan's tables of mortality, which were published in our New Year's twenty page issue, the death-rate in this city during the past year was unusually low. In order to arrive at a distinct comprehension of the bearing of figures on this subject it must be borne in mind that the limits of percentage of deaths which necrologists agree to be unavoidable, and the inevitable concession to natural decay, is eleven in the thousand. All above this rate they hold to be preventible by precaution, in healthy countries In rare instances the rate falls below the necessary limit, as for example in Michigan in the year 1870, where it was as low as eight to the thousand. We are not aware, however, that what is termed the necessary rate has ever been reached in cities. Mortality is always much greater where men are congregated in large numbers, and in London the standard sought to be attained is seventeen in the thousand, though in fact this has thus far always been exceeded. In practice it is generally conceded that city mortality when under twenty shows a very high average of health. When varying between twenty and twenty-five it shows a fair standard of health; and when reaching thirty it shows an alarming degree of sickness. In Massachusetts in 1868 the death rate was 20:2 per thousand. In California for 1870–71 it was about 14 per thousand, as estimated on calculations taken from observations of nearly half the population. The mortality in the great cities of the Union for 1870 was as follows per thousand: St Louis, 21:3; San Francisco, 21:4; Boston, 24; Chicago, 24:5; Philadelphia, 25:5; Baltimore, 27:1; New York, 29:3; New Orleans, 37:6. It will be noticed that according to the rule given above the mortality of New Orleans was enormous, but this is in a great measure accounted for by the fact that in the year referred to yellow fever and small-pox carried off at least a fifth of all who died during the twelvemonth.

"San Francisco is the second healthiest city of the eight mentioned above, and that year she was considerably above Sacramento, where the death rate was then 24 per thousand. During the year 1872, however, climatic influences were

more favorable to us, and, according to Dr. Logan, our death-rate was only 21.5 per thousand. This estimate, however, is based on a population of 16,298, and the latest census shows the number of inhabitants to be really 19,639, which would reduce the rate to about 18.5, an exhibit of the most encouraging character. Taking 17.0 as the standard of the highest degree of health attainable in considerable cities, it is apparent that during the past year Sacramento approached nearer to that standard than any city in the State has done before, and probably than any city in the Union has often reached. Eleven being the necessary limit in healthy countries, and the necessary city rate being set at seventeen, it is evident that the health of Sacramento, at 18.5, approaches nearer the standard for the country districts, which is 14.0, than the necessary country rate of 11 does to the estimated city standard of 17.0. We have no means of ascertaining the rate in San Francisco for 1872, but the monthly mortality reports having averaged about as usual, it may be assumed that it will not fall below 20, which will be a gain of one in the thousand, and it is possible that the rate of 1870 will be found to have increased rather than diminished.

"These facts are of no little importance to our citizens, and taken in connection with the exhibits of former years, tend to show that this city has steadily risen in healthfulness as the effects of the humidity of the situation have been overcome by leveeing and filling in. A few years hence, when the high grade shall have been extended so as to include the bulk of the dwelling houses, and the open cellars, which now serve for reservoirs to seepage and rain water, shall be filled in, we may expect to reduce our mortality to seventeen, and perhaps even lower. As it is, we have the satisfaction of knowing that the past year has furnished us a cleaner bill of health than any city of the Union, with the exception of St. Louis, has ever been able to show. Nevertheless, it will not do to forget that there is room for reform. The necrological table which we recently published shows that 95 deaths out of the total of 352, were caused by diseases of the lungs and throat, demonstrating the fact that there still exists in our midst a degree of humidity and miasma sufficient to justify alarm. Perhaps if the experiment of filling up the slough was made, a perceptible change in the list of deaths from diseases of the respiratory organs might be experienced."

MONTHLY REPORT OF DEATHS IN THE CITY OF SAN FRAN-

By C. M. BATES, M.D., Health Officer. *No. of Deaths corresponding*

CAUSE OF DEATH.	Total	AGES.																SEX.	
		Under 1 year	1 to 2	2 to 5	5 to 10	10 to 15	15 to 20	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90	90 to 100	Over 100	Unknown	Male	Female
I. ZYMOTIC.																			
Scarlatina	3		1	1	1													1	2
Diphtheria	6			2	3				1										6
Croup	2			2														1	1
Fever, Enteric or Typhoid	12				1	3	1	3	1	2	1							4	8
Fever, Puerperal	3						1	1	1										3
Erysipelas	8								4		4							7	1
Pyæmia	2									2								2	
Other diseases of this class	5	1		1					1		1	1						3	2
II. CONSTITUTIONAL.																			
Gout	1																		1
Rheumatism	1									1									
Cancer	4								3	1								1	3
Cancer of Womb	3							1		1			1						3
Other diseases of this class	2								1	1								1	1
III. TUBERCULAR.																			
Scrofula	1	1																	1
Phthisis Pulmonalis	47	1					1	19	12	11	1	2						34	13
Hydrocephalus	2			2														1	1
IV. LOCAL.																			
Congestion of Brain	3	1						1			1							1	2
Meningitis	13	2	3	4	1		1	1				1						3	10
Cerebritis	5		1	1			1	1			1							3	2
Paralysis—general	6							1	1	3	1							5	1
Other diseases of this class	7	2						1		1	3							3	4
V. CIRCULATORY SYSTEM.																			
Pericarditis	1										1							1	
Aneurism of the Aorta	1									1								1	
Carditis	3					1				1		1						1	2
Dropsy	2				1							1						1	1
Heart Disease, undefined	8							1	2	3	2							7	1
Other diseases of this class	2									2								2	
VI. RESPIRATORY SYSTEM.																			
Bronchitis—Acute	4	1	1		1						1							3	1
Pleurisy	2				1						1							1	1
Congestion of the Lungs	7	3							1	2				1				5	2
Pneumonia	18	3	2	2	1			3	4		2	1						11	7
Asthma	2								1		1							2	
Hæmoptysis	3									2	1							3	
Other diseases of this class	3	1			1					1								2	1
VII. DIGESTIVE SYSTEM.																			
Enteritis	6	2	1					1	1		1							1	5
Peritonitis	5							2		3								2	3
Liver Disease	3									1	1	1						2	1
Other diseases of this class	4				1				1		1		1						4
VIII. URINARY SYSTEM.																			
Nephritis	1									1								1	
Bright's Disease	2								1		1							1	1
IX. DEVELOPMENTAL.—CHILDREN.																			
Premature Birth	2	2																2	
Convulsions.—Infantile	15	11	2	2														14	1
Other diseases of this class	2	2																2	
X. WOMEN.																			
Hemorrhage—Post Partum	1									1									1
Metritis	1								1										1
XI. OLD AGE	2												2						2
XII. NUTRITION.																			
Atrophy	15	10	1					1		1		1	1					8	7
Inanition	2	2																1	1
Other diseases of this class	2								1		1							2	
XIII. ACCIDENTAL.																			
Wounds—Penetrating	8			1				2	2	3								8	
XIV. MURDER	1								1									1	
XV. SUICIDE.—Wound—Stab	3								1	1		1						3	
XVI. SYPHILIS	2								2									1	1
XVII. NOT SPECIFIED OR ILL DEFINED	2	1						1										2	
XVIII. UNKNOWN	24			2	1		1	12	5	3								21	3
TOTALS	294	45	13	20	13	4	6	52	49	49	27	10	5	1				182	112
XXI. STILL BORN																		18	8
XX. BIRTHS																			

CISCO, CALIFORNIA, FOR THE MONTH OF DECEMBER, 1872.

Month of 1866, 242; 1867, 217; 1868, 334; 1869, 270; 1870, 309; 1871, 300.

RACE.			WARD.																NATIVITIES.			
Caucasian	Mongolian	African	1st Ward	2d Ward	3d Ward	4th Ward	5th Ward	6th Ward	7th Ward	8th Ward	9th Ward	10th Ward	11th Ward	12th Ward	Public Institutions	Casualties	Suicides	F'r'gnCo'ntr's	Atlantic U. S.	Pacific U. S.	Unascertained
3			1							2										3	
6											1	1	1	3				1	1	4	
2							1							1						2	
12				4				1		1			4		2			6	3	3	
3											1		1		1			1	2		
8												1			7			7	1		
2														1	1			1	1		
5											1		1	1	2			2	1	2	
1											1							1			
4			1										2	1				4			
3						1		1							1			3			
2									1		1							2			
1											1									1	
34	13		1	2	2	5	3	3	2	8	2	2	4	3	10			33	11	2	1
2			1										1							2	
3			1		1						1							2		1	
12		1	1	1		1		1		2	2	2	1	2				2	1	10	
5						2					1			1	1			1	2	2	
6			1			1						1	2		1			3	3		
7						1		1			1	2			2			5		2	
1												1						1			
	1						1											1			
3				1		1						1						2	1		
2											1		1						1	1	
8						1					1	1		1	4			6	2		
2				1										1				1		1	
4					1							2	1					1		3	
2										1		1							1	1	
7				1		1			1	1	1	1		1				3	1	3	
18			1	2	2					1	2	4	3	1	2			3	7	8	
2				1						1								2			
2	1		1				1					1						2		1	
3												1	1	1				1		2	
6									1		1		3	1				1	1	4	
6			1			1			1						2			1	4		
3												1	1	1				3			
4				1		1						1			1			3		1	
1												1							1		
2				1											1			2			
2									1			1								2	
15			1	1		1				2	2	4	3		1					15	
1		1		1											1					2	
1					1													1			
1													1					1			
2											1	1						2			
15						1			1	3	3	1	3		3			4		11	
2				1								1								2	
											1			1				1	1		
6	2															8		6	1	1	
		1														1		1			
3																	3	2			1
2															2			2			
2										1					1			1	1		
2	22		2	2	3	8		7	1					1				21	2		1
252	39	3	13	20	10	26	5	15	9	23	26	33	34	22	46	9	3	149	50	92	3
26																					
54																					

Book Reviews.

A PRACTICAL TREATISE ON URINARY AND RENAL DISEASES, including Urinary Deposits, illustrated by numerous cases and engravings. By WILLIAM ROBERTS, M. D., Fellow of the Royal College of Physicians, London; Physician to the Manchester Royal Infirmary; Lecturer on Medicine in the Manchester School of Medicine. Second American from the second revised and considerably enlarged London edition.

The design of this work, as the author states, is to give an account of the organic diseases of the kidney, and of those diseases and disorders of which the chief characteristic is some alteration of the urine.

The first part, which may be regarded as introductory to the other two, is devoted to the physical and chemical properties of the urine, and to the various alterations which it undergoes under different circumstances of health and disease, so far as they seem to have a practical bearing. The methods of examining the urine for clinical purposes are explained, as well as the microscopical appearances of its deposits. Nothing, in fact, seems to have been omitted, a knowledge of which possesses any interest for the actual practice of medicine.

The second part treats of a group of affections designated "urinary diseases," viz.: Diabetes insipidus, diabetes mellitus, gravel and calculus, and chylous urine. In his description of these diseases, the author has given an analysis of the facts hitherto published in relation to them, together with those which have been observed by himself.

The organic diseases form the subject of the third and largest part of this most valuable work.

The author has not neglected any source of information within his reach, enriching the pages of his work with a large quantity of material, collected from various English and continental serials, and especially from the valuable issues of the London Pathological Society.

ERRATA.

San Francisco, Feb. 17, 1873.

Messrs. Editors: Please make the following corrections in my article of last month. On page 716, line 11, read, "are not essential;" line 21, "these cases;" line 24, "to mask;" page 717, line 8, read "did not occur to me;" page 718, line 16, read "by the means used;" line 46, "masked" for "marked;" page 719, line 1, read "these cases" for "this case." You make the report of the first case terminate with the fourth line on this page, while, in the manuscript, I intended to finish the case with a detailed report of the treatment. The plan of treatment followed in the case was mostly morphine and chlorodyne. But to continue: on the same page, 719, line 17, read "should" for "would;" line 18, "finding" for "hearing;" same line, "this condition" for "his," etc.; line 21, "from pericarditis;" line 23, "examined him;" line 27, "questioned him."

Yours, very respectfully,

W. F. McNutt.

THE

WESTERN LANCET:

A JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

FOR FEBRUARY, 1873.

Surgery.

ART. I.—*On the Operation of Internal Urethrotomy, with a Case.* By CHARLES B. BRIGHAM, M. D., San Francisco.

Although the operation of dividing strictures of the urethra by an incision practiced within the canal, dates from over a century, few surgeons, other than the French, operate by this method at the present day. Unquestionably the operation has certain great advantages, and these we propose to name, after giving a brief account of the manner of performing it, and of the instrument as improved by M. Maisonneuve. This instrument consists:

1st. Of a flexible filiform bougie, with a screw at its extremity.

2d. Of a groved, steel, curved conductor, which fits itself to the screw of the bougie.

3d. Of a steel wire, armed at its extremity with a triangular blade, the base of which is fixed to the wire, while its apex is blunt, and its two sharp sides slightly concave. This wire glides within the grove of the conductor.

The operation is an easy and simple one, and so painless as not to require the use of anæsthetics. The filiform bougie is passed in to the urethra, more by strategy than by force, and once in the bladder, the conductor is screwed

to its extremity; thus guided, the conductor is gently passed into the urethra, pushing the bougie before it into the bladder. The blade is then passed along the conductor in its groove, and the stricture is cut both as the blade enters and returns. A catheter of medium size, with its extremity cut off and smoothed, and with two large large eyes on either side, is then introduced and held in place in the urethra by a silk thread, this thread is fastened to the penis by a strip of court-plaster, coated with a little collodion, so as to stay in place, in spite of the moisture of the parts.

As preparatory treatment, it is the custom to give two or three grains of the sulphate of quinine for several days previous to the operation; why this is done and for what good no one knows. Some surgeons give teas and purges for the same reason. As the bowels are to be kept quiet during several days following the operation, an injection *per rectum* should be given immediately before it.

The bougie, which is left in the urethra, plays an important part; it is not intended to act as a foreign body and press apart the sides of the wound, but simply to prevent the urine from coming in contact with the wound until the bleeding vessels become closed. It should be left in the urethra from thirty-six to forty-eight hours; its extremity should be left open so as to allow the urine to pass drop by drop, and it should be watched so as to be freed from obstructions of mucus, etc. As there are some patients who cannot support even a medium sized bougie when left in the urethra, a smaller one may be substituted, leaving it twenty-four hours longer in place. If the bougie is withdrawn before thirty-six hours have expired since the operation, we run the risk of having a slight secondary hemorrhage; but we are forced to withdraw the bougie on the exhibition of great pain. The patient is kept in bed and fed with thin soups and diuretic drinks only; poultices may be applied to the abdomen and perinæum to anticipate any inflammation. Some patients have but a slight febrile access with scarcely an elevation of temperature; but more frequently, soon after the operation, the pulse is quickened, the temperature is raised, and we have the usual symptoms of traumatic

fever. Should the patient have a chill the temperature rises and falls very suddenly; it seldom happens that these chills are repeated, and they occur on the first or third day after the operation. M. Maisonneuve regards the chill as a symptom of what he calls "urinary intoxication," and perhaps it is to anticipate this that quinine is given before the operation.

The urethritis which almost invariably occurs is of a light nature, and the natural consequent upon the healing of the wound by the second intention; it is seldom severe, lasting in the majority of cases about a week, and accompanied by a slight pricking sensation at the seat of the incisions.

On the withdrawal of the stationary bougie, the patient is left until the urethritis has wholly ceased. We may then suppose that the cicatrization of the wound is accomplished, and if no pain can be felt along the seat of the incision, a bougie, a size or two smaller than the stationary one, may be passed and kept in the urethra for a few minutes. In thus passing this bougie for several days, its size may then be increased, and the patient left to pass the bougie daily for several weeks, then once a week for several months, and then always once a month. Certainly half of the success of the operation depends upon whether the patient performs his part of the work or not; he is generally so pleased with the sudden change in the flow of his urine, that he takes the subsequent treatment for granted, and this is one great reason why a relapse sometimes occurs.

In severe cases, which fortunately are rare, inflammations of the bladder, kidneys or testicles may occur. Sir Henry Thompson says on this point: "I have twice seen free but never dangerous hemorrhage, and sometimes a smart attack of fever, but never abcess, extravasation of urine, inflammation of the bladder or kidneys." On the other hand, in the Hotel Dieu at Paris, M. Maisonneuve was accustomed to perform this operation several times weekly, and with results not over flattering so far as my observation went; at the same time the want of minute care after the operation, and of fresh air in the wards, had doubtless a great influence upon the result.

M. Reverdin, of Geneva, in his excellent thesis on internal urethrotomy, gives a table of sixty-three operations performed by M. Guyon, of Paris, in but one of which death occurred.

The operation of internal urethrotomy is not to be classed among dangerous operations; it has this advantage over the operation of forcible distension of the stricture by Mr. Holt's instrument; it makes a clean cut, which is less apt to form bad retractile cicatricial tissue than a contusion, which must always be more or less violent, and which is followed by a certain degree of inflammation. It has been claimed that in the operation by distension, the vessels being torn, hemorrhage is avoided. I am convinced that the cases are rare where hemorrhage occurs in internal urethrotomy; and if the bougie is left in the urethra during thirty-six hours after the operation, there will be no danger of hemorrhage.

The contra-indications of the operation are yet to be learned by experience; there are surgeons who prefer dilatation, where the urethra is indurated in many parts, or throughout its course; others decry internal urethrotomy in cases of disease of the bladder or kidneys, or in the severe access of fever, while others, myself among the number, regard it in these cases as the sole means of safety to the patient. A little more than a year ago I performed the following operation at Paris:

R. de M., *aet.* 41; married. In 1855, the patient had a severe gonorrhœa, lasting for months; he received little or no treatment, and since 1867 has been able to urinate only with great difficulty, the urine passing drop by drop; the patient was, however, in good general health. A No. 7 bougie (French scale) passed with great difficulty into the bladder; three separate strictures were distinctly detected in the middle and lower part of the spongy portion of the urethra, a few lines apart from each other; a slight irritation of the canal followed the introduction of the bougie; no attempt was made at dilatation. On the twenty-eighth of December, 1871, the operation of internal urethrotomy was decided upon, and practiced with the instrument of M.

Maisonneuve. During two days previous to the operation, that nothing might be wanting to its success, the patient had taken three grains of quinine daily, and on the morning of the operation nine grains were given him. The filiform bougie was then gently introduced, and the steel rod being screwed to its extremity, it was pushed into the bladder; the knife (blade 21) was then passed down the conductor and divided the strictures, causing but a slight pricking pain. The three strictures were distinctly felt, both by the patient and by myself, as the knife made its way through them; the urine flowed drop by drop during the whole time of the operation; a No. 16 bougie (French scale) was guided into the urethra by means of a straight conductor, screwed to the filiform bougie, the curved steel conductor having been unscrewed. This bougie was then left with the intention of removing it from the urethra within a few days; but slight hæmorrhage followed the operation, the blood being mixed with the urine. The pulse of the patient was 60; the temperature 37° Reaumer. The operation occupied twenty minutes; in the evening the pulse was 68; the temperature 37°; clear soup and flaxseed tea were ordered, and wet towels were applied to the abdomen.

Dec. 29. Pulse 74; temp. 38°. The patient passed the night without pain but sleeplessly; the bougie attached by silk thread and court-plaster, remained well in place; the tongue was slightly coated; there was little, if any, urethritis; the urine was thick and reddish.

Dec. 30. Patient slept well; no pain of any account; pulse 68; temp. 37°; the bougie was withdrawn at eight o'clock this morning, forty-six hours after the operation; a little pus was seen near the extremity of the bougie, but no blood followed its withdrawal; in the evening the pulse 68, temp. 36°; the patient has not urinated all day until seven o'clock this evening, when he urinated scantily; at eight o'clock he was seized with a severe chill, which lasted until midnight; he passed his water soon after with a slight pricking sensation; there is a slight urethritis.

Dec. 31. Urinated at seven this morning, with a little

more pain in the urethra; pulse 80; temp. 39°; the urine still reddish and cloudy; evening, pulse 72; temp, 36°; skin fresh; urethritis moderate; no swelling of the penis nor of the testicles.

Jan. 1. Pulse 72; temp. 35°; urine less red and with little sediment; tongue still white and coated; appetite slight.

Jan. 2. Urine pretty clear; pulse 60; temp. 36°; tongue clearing from the centre; the patient eats chicken with good appetite; on going to stool for the first time since the operation, a little blood came from the urethra; the urethritis very slight.

Jan. 3. Urine clear; pulse 60; temp. 36°.

Jan. 4. Injection per rectum given daily; pulse 60. The patient is still in bed and is doing well.

Jan. 5. The patient sat up nearly all day; on the seventh he walked for the first time since the operation, and on the tenth, a No. 16 bougie (French scale) was passed with very little difficulty. It was kept in the urethra during one hour without pain; on urinating afterward, a thread of blood was evacuated with the clear normal colored urine.

Jan. 11. The patient passed the catheter alone to-day, the urethritis has ceased, and the patient is allowed to resume his labors from this day. The patient was advised to pass the bougie once a week for several months, and then regularly once a month; over a year has elapsed since the operation, and the patient still passes a No. 18 (French scale) bougie without the least difficulty, and is in excellent health.

ART. II.—*Rupture of the Biceps Flexor Cubiti.* By SAMUEL ASHHURST, M.D., of Philadelphia.

The following case possessed considerable interest for me at the time of its occurrence, and from its rarity seems worthy of going upon record.

I. S., *aet.* 35 years, was admitted into the Episcopal Hospital, Philadelphia, July 26, 1871, suffering from a

scalp-wound. He could give no very clear account of the manner in which he had been injured, merely stating that he was thrown from his wagon while driving, but did not think he had been run over. The scalp-wound was dressed and he was put to bed. The next morning (July 27) he complained of much soreness in his left arm, when, upon examination, a rupture of the belly of the biceps was at once apparent. On the anterior aspect of the arm there was a depression an inch and a half wide, into which the skin and subcutaneous tissues could be pressed to the depth of half an inch, and the ends of the torn muscle could be felt as thick lumps. Handling the arm caused great pain. Flexion of the elbow could be performed partially, with difficulty and suffering. There was hardly any evidence of injury to the neighboring skin, further than slight ecchymosis, from which fact it seemed most likely that the rupture resulted from sudden and forcible muscular contraction rather than from the application of a crushing force, as at first sight supposed. Compresses were placed over the separated ends of the muscle, which were brought together by figure-of-eight turns of a bandage enclosing the whole extremity, and the limb placed in a sling.

On August 4 the bandage was removed, and, although a slight indentation in the muscular substance was apparent, the patient was able to move the elbow freely and without pain. On August 7 all tenderness had disappeared, and, the scalp-wound having united, he was discharged.

Samuel Cooper is the only one among the older English surgeons who refers to ruptured muscles, and he merely treats of rupture of the tendo Achillis. Palmer* says that rupture of the triceps extensor cubiti sometimes occurs; but he does not mention the biceps, though the object of his remark is to correct the statement made by Mr. Hunter, that the tendo Achillis is the only one liable to the injury under consideration. Druitt says that rupture of the biceps occurs, but gives no case; and Ericksen, treating of ruptured muscles in general, does not mention the biceps. Mr. South† reports a case which occurred in his own practice, in which a tear of the biceps took place near its lower tendon, from contraction of its own fibres; but, having failed to take notes of the case at the time, he does not give many pariculars. Dr. J. Mason Warren, in his "Surgical Observations," relates three cases in which the quadriceps extensor femoris was either partially or entirely torn near its

* Works of John Hunter, vol. i. p. 436.
† Chelius, System of Surgery, vol. i. p. 543.

tendon of insertion; but a life of active and extended practice, of which his book is the record, apparently failed to furnish such a case as I record above. Mr. Tatum ‡ gives a pretty full account of torn muscles and the treatment proper to adopt in such rare accidents; but among the cases cited by him there is none of ruptured biceps.

Boyer § says that most authors speak of muscular ruptures as possible, without giving any cases, and that we must therefore regard the accident as very rare. He gives two cases himself, neither of which, however, was of the biceps. Vidal || speaks at some length of muscular rupture, but does not refer to the biceps.

In fact, the literature of the subject is extremely meagre, one or two cases being all that any one systematic treatise furnishes. M. Reydellet ¶ gives the largest number of cases I have found together; but of the eight cases quoted by him from various sources, in none was the biceps the injured muscle. A paper by J. Sédillot upon ruptured muscles is quoted by Gross, Erichsen, Tatum, and the French surgeons generally, but I have been unable to find the original article. In the *Journal General* for July, 1817, Sédillot gives an abstract of his memoir, with Baron Percy's report upon it to the Academy; but, as no cases are given, I cannot say whether an instance of ruptured biceps was among those collected by him.

My case did not present all the symptoms enumerated by authors, the ecchymosis having been less and the recovery more rapid than I should have expected by the descriptions given. That the accident is a rare one is sufficiently proved by the fact that the solitary case I have been able to find, after a somewhat extended search, is the one quoted by South from memory. While rupture of other muscles may be serious, as in the case of ruptured psoas recorded by Boyer, which terminated in death, such an injury as I report is apparently as unimportant as it is rare, and can only be regarded in the light of a surgical curiosity.—*Medical Times.*

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‡ A System of Surgery—Holmes, vol. iii. p. 523.
§ Traite des Maladies Chirurg., Tome onzième, p. 86.
|| Path, Externe, Tome deuxième, p. 735.
¶ Dictionnaire des Sciences Médicales, article Muscle.

ART. III.—*Fracture of Coracoid Process of Scapula.* By W. H. WINSLOW, M.D., of Philadelphia.

Rare cases, mere waifs upon the sea of structural lesions, occasionally drop in to obscure physician's offices, as if to tantalize their aspirations and test their skill. Not those that go the rounds of clinics, and annually consult everybody, from true physicians to Indian Doctors, Homœopaths and Quacks; but those, who, after regular treatment, have despaired and gone along suffering, until catching new hope, have called upon the nearest physician for salvation. Our statistics are mostly drawn from hospitals and dispensaries necessarily, but much value attaches to those in private practice, and it is to be regretted that they are so seldom placed before the profession.

I was tempted into this diversion from reading in the "Surgery" of an eminent authority, that fractures of the scapula were exceedingly rare, and several of the cases had been reported by men whose other surgical achievements were disproportionate; as if to doubt their diagnostic abilities. We cannot all be great surgeons, but average mental abilities, properly trained in our excellent medical colleges, can certainly determine most fractures of the scapula.

A man, *aet.* 28 years, a paper-hanging block-cutter by trade, presented himself at my office recently with the following history: Eighteen months ago, while wrestling with a companion, he received a fall, injuring the soft parts about the shoulder, and dislocating the humerus into the axilla. The luxation was reduced, and the arm retained in a sling about three weeks, with a free application of lotions over the articulation. The patient complained of inability to use the arm as formerly, there being a tired feeling when dropped by the side and pain upon lifting a heavy weight, with dislocation when he attempted to raise it suddenly, throw anything forcibly, or even when he placed it in certain positions while asleep, which condition still persisted notwithstanding treatment by lotions, bandages, electricity and antilithics, at the hands of British surgeons. He said: "I'm constantly getting the thing out, and my wife has become a natural bone-setter, practicing upon it."

Upon examination, I found no local swelling, tenderness, or pain. The humerus, clavicle and acromion were intact, though the former drooped away slightly from the cotyloid cavity. The arm could be abducted and adducted freely, but in swinging it around, so as to describe a circle with the

horizon parallel with its diameter, he was obliged to move it very slowly, as he brought it forwards and upwards. By moving the arm upwards, distinct cartilaginous crepitation could be felt under the clavicle, at the locality of the coracoid process, and the functions of two of the muscles attached to it, the biceps and coraco-brachialis, being partially in abeyance, a fracture of it, united by fibrous tissue, was determined.—*Med. & Surg. Reporter.*

ART. IV.—*Pressure on the Carotids to Control Intercranial Circulation.* By ROBERT B. MCNARY, M.D., Holden, Mo.

It is exceedingly strange to my mind, that the very simple and efficient means by which the intercranial circulation may be controlled, by means of digital pressure upon the carotid arteries, has been so universally overlooked. The pulsation of these arteries may be plainly and easily felt on either side of the trachea, and the circulation through them may be almost as certainly controlled by properly applied pressure, as if they were held between the thumb and forefinger.

The applicability of the principle to the great variety of diseases in which it is indicated, will of course suggest itself to the mind of any physician, and I will therefore not occupy your space by any expatiation upon the subject, but will remark, by way of illustrating its practical applicability, that I have succeeded in relieving a great many cases of violent headache, a convulsion or fit in a young man. But the stronger proof of its value as a remedial means was afforded in the case of a boy, eleven or twelve years old, who had been very dangerously ill for several days, with what was supposed to be congestion of the brain. He had had several convulsions, and had been perfectly blind since his illness began. I was requested to see him at night, and remain the next morning, till the physician in whose care he was, could meet me in consultation.

When I examined him, the symptoms were of such a peculiar nature, that I was utterly at a loss as to what I should do, in which unpleasant condition of my own mind, the above idea occurred to me, and I had hardly got my fingers well and firmly fixed, when he told me that his headache (which I neglected to mention with the other symptoms), was better, and within less than five minutes I

think his sight had perfectly returned, he was free from all pain or uneasiness, and continued to recover rapidly, without *any medicine.*

A good many cases in previous practice, have since occurred to me in which the same principle *might* have been applied with similar results, had I known it. I have never heard it from a medical man, or seen it in a medical journal, but it does seem to me to be of sufficient importance to be suggested, and at the command of every medical man, when the necessities of a case require it.—*St. Louis Medical and Surgical Journal.*

Institutes and Practice of Medicine.

ART. V.—*The Early Symptoms and Treatment of Insanity.* By W. W. GODDING, M.D., Physician at the Lunatic Asylum in Taunton, Mass.

[Read before the Bristol North District Medical Society.]

In regard to the symptoms of insanity, the statements I shall make must be understood to be general, and not without frequent exceptions.

The man afflicted with bodily disease feels that he is sick and anxiously seeks the counsel of his physician; the man whose mind is becoming disordered either does not consult you at all, or, if he does, it is for some fancied ill, far enough from his real trouble. The chances are that you are first called in by his friends, they having noticed something strange about him, while he assures you that he is not sick and has no occasion for your services; perhaps they have put a child to bed, with a cold in his head, for you to ostensibly prescribe for, while you are expected quietly to observe the expected party and tell them what ails him. In nine cases out of ten there will be marks of disorder about his clothing or person in some way, for, as a rule, the insane show untidiness of dress; the passage of scripture, "clothed and in his right mind" is pertinent here. In the early stages of the disease the insane are often uneasy, in a constant motion, getting up, walking about the room, busy

with nothing. Set about a piece of work, they do not finish it. Later in the disease, they will sit for hours in the same position; sometimes this is so from the commencement, not usually. The expression of the countenance is of importance in determining insanity. We hear a great deal about the eye of an insane person; well, there is something in it; it is apt to be an unquiet eye, sometimes dull, often with an anxious look. I notice they do not generally take well in a photograph. On the other hand, I must say that I have seen insane persons whose eyes you would have to look at a great while before you saw the insanity in them. Depression, as shown in the whole manner as well as in the countenance, is seen in the early stage of insanity, in a majority of cases; indeed, Dr. Saukey goes so far as to claim that no attack of insanity occurs primarily without an incubating stage of depression. I doubt the truth of this, but it is certainly a very common condition. The countenance is markedly changed in other respects. There is something blasting in insanity that withers up the freshness of life, making the young look prematurely old. Walk through the wards of our hospitals and see how few of the women have any traces of beauty. I have sometimes wondered, looking on faces whose ugliness made them repulsive, if they were ever anything but hideous; then, when I have seen the reason come back, the angular features round into a smile, the soft light gather again in the eye, the countenance grow radiant with intelligence and "clothed upon" with a beauty from within, I have realized how to the mind all things were possible, even to the fulfillment of the prophetic promise that "beauty shall spring up out of ashes, and life out of the dust."

Sometimes, when you are speaking with your patient, you will observe that he is looking aside in an abstracted way, or has ceased to notice what you are saying, but is plainly occupied with something. The question, "Do you hear them?" will then often bring the quick answer, "Yes, and so do you," and you learn that he has been listening to a voice, a voice far more persuasive than yours, for singularly enough they will disbelieve and controvert what you say, but the hidden voice, that speaks only to them, they trust most implicitly, apparently without power against it; like the wedding guest in Coleridge's Ancient Mariner, "He cannot choose but hear." I have at present under my care a man who says he is troubled with "an undertone;" in obedience to this he makes assaults upon others, and, from the violence of his demonstrations at times, you would conclude that the voice spoke to him in anything but undertone.

Hallucinations of hearing are not very uncommon in insanity and must be regarded as an unfavorable symptom. Hallucinations of sight are, in my experience, much rarer in insanity than in delirium. They are a prominent symptom in *mania-a-potu*, and they seem to me somewhat common in the early stages of puerperal mania.

Sleep, the "balm of hurt minds," as Shakspeare calls it, is often deficient, sometimes wholly wanting in the early stages of insanity. Indeed, prolonged loss of sleep without apparent cause is in itself a sufficient ground for grave apprehensions respecting the mental condition of the individual thus affected. It occurs in a great majority of the cases of insanity, and it is surprising how long they will sometimes survive apparently without sleep, and yet in the end recover. The return of sleep is often the commencement of convalescence.

The digestion is impaired in the early stages of insanity; the patient often neglects taking food or takes it at irregular intervals, sometimes refuses it altogether. The taste is rarely fastidious, more frequently it is wanting, and food is taken without reference to its character or quality. A ravenous appetite in insanity generally indicates a degree of dementia, and is so far an unfavorable symptom. A pasty tongue, bad breath and constipated bowels are common in all stages of insanity.

We are sometimes consulted in a case where the moral sentiment alone seems to be at fault. A not very uncommon form of this is seen in young persons recovering from typhoid fever; friends remark that they are somehow changed; perhaps they will be peevish and irascible, though previous amiable and mild, or they will be found to make use of language that is profane or vulgar, or they show a propensity to pilfer without much reference to the value of the article taken, though formerly most correct in all these respects. In the female, a queer mental condition of this kind sometimes depends upon a disordered menstruation and may be cured, but in males you will generally detect some symptoms of weakness of mind accompanying, and your prognosis, as regards cure, will be unfavorable. There is probably some organic change of the brain or meninges. There is a vice to which the friends of the patient give the popular name of "hard study." You will be consulted in regard to a young person whose failing health and strange conduct have attracted attention. You find a shy, generally shame-faced boy, disinclined to do anything, with hands cold, pasty and blue from sluggish capillary circulation; the pupils of the eye are large, and

there are generally symptoms of nervous prostration; there is apt to be a moody, unpleasant expression of countenance. As regards close application to study, it usually consists in shutting themselves up alone and being little in society, their standing as scholars being something below mediocrity, and they are often in dementia when you are first called. It is somewhat rare in girls, but you meet it every now and them. They differ in being very emotional and nervous, complaining of all sorts of aches and pains; they seclude themselves very closely, sometimes are bed-ridden with supposed womb difficulties. Strangely enough the manifestation of a deep religious feeling is not incompatible with this vice. Their devotion perhaps follows too literally the injunction to "enter into the closet and shut to the door."

In regard to another kind of case, you will hardly fail now and then to be consulted where it is very desirable to make a correct diagnosis. A man in the prime of life, or having hardly reached it, very well, active in some business, often very successful, or perhaps somewhat embarrassed, but ambitious, a driving, energetic man, working hard and living well, a good man for chicken salad or a late supper, yes, a little fast, but not an inebriate. What will strike you, at first sight, will be his activity, his volubility and his self-sufficient and satisfied air. If his business has been embarrassed it is all right now. You will find he has made some very wild financial transactions, or if not, is all ready to do so. He has the most brilliant schemes and no misgivings as to their success; his bank balance is inexhaustible; he can give you a check for a million without the slightest inconvenience. He unfolds his magnificent plans before you, and while he is talking rapidly and earnestly his speech staggers over some word for a moment, and then goes on as glibly as ever; presently you mark it again, not a stammer, a little hesitation as of a person slightly intoxicated, that is all, but it is enough. To other eyes he may seem full of life, the picture of health, crowding work for a lifetime into a day, standing at the culminating point of a successful career. *You* see a man whose work is done, who will probably be dead within a year, and for whose recovery there is not a particle of hope. Paresis, or general paralysis as it is more commonly but less correctly called, in its brief but splendid stage of grandeur, seems the very inflorescence of insanity, and it is touchingly painful to those who watch its daily progress, to see how soon "the flower thereof fadeth and vanishes away."

A word now of the early treatment of insanity. In the active forms of insanity two important points in treatment

are to keep up strength and secure sleep. The first is best done by nourishment. Bark and iron may be indicated as tonics, but they are not food. The importance of food seems to be recognized, theoretically at least, by all physicians; at the same time patients are constantly being brought to the hospital who have eaten but little for weeks, who perhaps have absolutely refused all food for several days, and their haggard looks and peculiar characteristic breath show that they are actually starving. While realizing how great an advantage it is to have the patient take food voluntarily, and using every endeavor to have them, I am satisfied that in many cases an early resort to the feeding tube is the humane and only justifiable course to pursue. There is no doubt but it might be used to advantage much oftener than it is, outside of hospitals. I think no year passes that I do not see lives saved by its use. Perhaps it is not generally understood how long life may be prolonged with nourishment taken only in this way; one, two and three months are common cases; eight and nine months are both within my experience, and the longer term resulted in recovery from insanity. Without organic disease of the digestive organs there is no excuse for letting a person starve to death.

The second indication, to secure sleep, is sometimes best met by supplying food. A full meal is often a better sleep-compeller than an opiate. Milk, egg and brandy, with a little nutmeg and sugar, is very palatable and anodyne in its action. Food may, however, be well and readily taken and yet the sleep be wanting. When you have to give some drug as an hypnotic, what shall it be? The fashion changes here as everywhere else in medicine. Thirteen years ago, when I first began my acquaintance with the insane, half a grain of the sulphate of morphia, with two drachms of fluid extract of conium three times a day, was the standard prescription for active mania. Then we bought morphine by the ounce, going often to the druggist; now I buy a drachm and it lasts a wonderful while. The insane bear opium just as well now as they did then, but I do not. Still, there are some cases where there is nothing like it. To-day, chloral hydrate is the favorite reliance; we like it and hope that this anchor will hold. In doses of twenty to thirty grains at bedtime it often seems to work very satisfactorily, and is probably not more dangerous than any other equally powerful remedy. It will bear to be repeated, but not indefinitely. Where it fails to produce any effect in the ordinary full dose, it is best to try something else. Bromide of potassium deserves its high reputation, but it is less a hypnotic than chloral. Ether, by inhalation, in cases

of prolonged wakefulness with high excitement, often has a most happy effect; as often the effect does not last beyond the administration of the remedy. The conclusion to which I come is that in mania all drugs are uncertain in their effect; that food, restraint in rooms, with confinement to the bed if necessary, are more important than medicine. Especially is it desirable not to overdrug the patient. The enormous quantities of opium that the insane will bear offers a temptation in that direction, but it will disappoint you, and when your patient is full of opium and chloral, and ether and hyoscyamus, etc., etc., there is neither room nor appetite for any food. When such cases are brought to the hospital we generally stop everything and go back to first principles—milk, with perhaps a little lime water.

The treatment outside of drugs, of mind treated by mind, of travel, of change of surroundings, of occupation, all these questions you, as physicians, will be called upon to decide, and each individual case will present its own peculiar aspect. I can only say of this that the so-called moral is generally more important than the medical treatment, and that as a rule change of scene and of all the surroundings benefit the insane.

The question of a removal to a hospital fairly comes in here. I do not hold that insane persons are to be taken indiscriminately to a hospital simply because they are insane; the question for the medical adviser in each case should be, can anything better be done for this man than to send him to the hospital? If not, urge upon his friends that it be done at once. The friends may not choose to take your advice, but if the insane man commits suicide or a homicide a few days later, they may come to respect your judgment and you would probably feel better about it than if your advice had been to keep him at home a while longer. But my impression is that the medical fraternity are not open to the charge of advising friends to keep insane patients away from the hospitals; I have sometimes feared the error might be the other way. It is often a doubtful question whether a delicate woman just confined and suffering from puerperal mania, should be removed at once, or whether the effort should not be made to provide for her for a few days at home. A large majority of the cases of puerperal mania recover if the physical system can be carried over the shock; hence, if a change involves removing in winter weather to any considerable distance, by open conveyance, it is very doubtful whether it is wise to attempt it. It is unpleasant to see a patient brought to a hospital in a moribund condition, though it now and then occurs. Where there is hopeless pulmonary disease, even though a fatal termination is not

immediately imminent, it is generally ill-advised at attempt a removal; it is better for all parties concerned to have them die at home.

Harmless imbecility often crowds our hospitals when it might be finding enjoyment elsewhere; that friends have become tired of taking care of them at home is certainly a poor excuse for advising their removal to a hospital. One of the saddest sights to me is that of a poor old mother in the last stages of senile dementia, whose life and mind and everything have gone out in the service of her children, who has slept in the same bed and sat in the same corner in peace for I know not how many years, too feeble to strike a blow if she was so disposed, with hardly mind enough to entertain a delusion, now suddenly found to be too dangerously insane to be cared for at home, and packed off to the hospital. It is generally her last ride, for the shock of the journey breaks up the softened brain tissues; she runs down rapidly; is dead within three months; the hospital has the credit of her decease, and the friends, "verily they have their reward."

One other point and I have done. It is always pleasant to know that a high estimate is put upon one's ability, but it sometimes becomes a little embarrassing. A patient is now and then brought to the hospital accompanied by some near relative, who narrates the past history of the case with painful minuteness of detail, the more so because you see that it is one of those hopeless cases from the start, where little by little the mind has fallen out until there in nothing left. The first glance at your patient confirms all that has been told; the life has withered up, the face has a vacant look, for the soul left it years ago, and you turn to the friend and say, "I suppose your doctor told you what you might expect in this case?" "Oh yes, he said he could not do any more for him, but if we should carry him to Taunton, the doctors at the hospital could make him all right in a few weeks." I beg, gentlemen, as a special favor, that *you* will not so over-estimate our ability.

So, cursorily, I have gone over the subject, not hoping to exhaust it, for the study of insanity is as infinite as is the mind whose thick teeming fancies are disordered by it.

"To minister to a mind diseased"—it is a study worthy of our highest ambition. Can medicines restore the mind? No, but we may remove the exciting causes, build up the exhausted body, replace the iron in the blood, give sleep to the tired brain, patiently ministering and waiting till a hand greater than ours with a touch infinitely tender shall cast out the demon and bring back the man.—*Boston Med. and Surg. Journal.*

ART. VI.—*The Newly-Discovered Hæmatozoon Inhabiting Human Blood.*

We announced in a few lines in the course of the summer, the discovery, by Mr. Timothy Richard Lewis, M.B., Assistant-Surgeon to H. M. British Forces, on special duty, attached to the Sanitary Commissioner with the Government of India, of a new worm found in the blood and in the urine of certain patients who had come under Mr. Lewis's notice in India. We have been favored with an article describing this parasite and the cases in which it was found. The article is contained in the Report of the Sanitary Commissioner with the Government of India, just published, and will be read with much curious interest by all helminthologists. Certain limited portions of large vessels, as those of the portal system, have often been invaded by *Distomata*. But the condition described by Mr. Lewis is one in which the whole blood in infested with living active worms about 1-75th of an inch in length, and with a transverse diameter of 1-3500th of an inch—"a condition," says the discoverer, "in which they are persistently so ubiquitous as to be obtained day after day by simply pricking any portion of the body, even to the tips of the fingers and toes of both hands and both feet of one and the same person with a finely-pointed needle. On one occasion six excellent specimens were obtained in a single drop of blood, by merely pricking the lobule of the ear."

Filaria sanguinis hominis is the name first given to this hæmatozoon in *The Lancet*, and Mr. Lewis proposes to retain it. Its appearance on first being removed from the body is very characteristic. It moves about incessantly, coiling and uncoiling itself unceasingly, lashing the blood corpuscles about in all directions, and insinuating itself between them. A young Bengalee compared it not inaptly to an incompletely-developed snake. At first the worms look translucent; the large specimens, however, frequently presenting an aggregation of granules towards the junction of the middle and lower half. Occasionally a bright spot is seen at the thicker extremity, suggestive of a mouth. They continue active from six to thirty hours. In the latter period of their existence the movements of filariæ become much slower, and the plasma of their bodies more granular, until all signs of activity disappear. The hæmatozoon is enveloped in an extremely delicate tube, closed at both ends, within which it is capable of elongating or shortening

itself. Mr. Lewis infers, from the fact of its being so enclosed in a structureless membrane, that its home is the blood, and that it has no means of perforating the tissues.

The question arises as to the origin or morbid significance of these filariæ. Mr. Lewis first noticed them two years ago in the urine of a patient much emaciated and passing chylous urine. In July of the present year, whilst examining the blood of a native, suffering from diarrhœa, he observed nine minute nematoid worms in a state of great activity on a single slide. He and Dr. Douglas Cunningham agreed that the worms were of the same kind as had been observed in the patient with chylous urine. Mr. Lewis has examined the urine in from fifteen to twenty cases of chyluria, associated with more or less marked hæmaturia, chiefly, by the way, in women, and *the microscopic filariæ have been present on every occasion.* Of the persons thus affected, five were of pure European parentage, but three of them were born in India; the remainder were either East Indians or natives in about equal proportion. The patient in whose urine the filariæ were first detected in March, 1870, disappeared, but Mr. Lewis has lately seen him. The urine looks healthy, but the blood contains hæmatozoa. The following is the summary with which the author concludes the account of his interesting and important discovery:

"(1.) It has been shown that the blood of persons who have lived in a tropical country is, and not rarely, invaded by living microscopic filariæ, hitherto not identified with any known species, which may continue in the system for months or years without any marked evil consequences being observed; but which may, on the contrary, give rise to serious disease, and ultimately be the cause of death.

"(2.) That the phenomena which may be induced by the blood being thus affected is probably due to the mechanical interruption offered (by the accidental aggregation, perhaps, of the hæmatozoa) to the flow of the nutritive fluids of the body in various channels, giving rise to the obstruction of the current within them, or to rupture of their extremely delicate walls, thus causing the contents of the lacteals, lymphatics or capillaries, to escape into the most convenient excretory channel; such escaped fluid, as has been demonstrated in the case of the urinary and lachrymal or Meibomeian secretion, may be the means of carrying some of the filariæ with it out of the circulation; these occurrences being liable to recur after long intervals—so long, in fact, as the filariæ continue to dwell in the blood.

"(3.) That, as a rule, a chylous condition of the urine is

only one of the *symptoms* of this state of the circulation, although it appears to be the most characteristic symptom which we are at present aware of.

"(4.) And, lastly, that some of the hitherto inexplicable phenomena, with which certain tropical diseases are characterized, may eventually be traced to the same, or to an allied condition; hence, it becomes *imperative* to subject the blood of patients suffering from obscure diseases, in tropical countries at all events, to *thorough* microscopic examination."—*Lancet.*

ART. VII.—*Ruptured Jejunum; Absence at first of Serious Symptoms.*

John R——, *aet.* 32, brewer's man, was admitted into the London Hospital, under the care of Mr. Rivington, February 19, 1872. Patient was walking across a plank laid over a brewer's vat, when he missed his footing, and fell a distance of sixteen feet. When he came to the hospital he was examined by the house-surgeon, who was unable to detect any sign of a serious injury, and, consequently, gave him an out-patient's ticket. Later in the day he returned, complaining of pain in the chest, and also at the lower part of the belly. He was admitted as a case of contused chest. The patient was a very stout man, with much fat on his body, and it was therefore difficult to examine satisfactorily his ribs and sternum. His water was drawn off, and it was like dark tea, without blood. He vomited once when he came in. Subseqently he had a disposition to vomit, but did not bring up any thing. When seen about 5 o'clock, by Mr. Rivington, he did not exhibit the usual signs of the injury from which he was suffering; he did not complain of pain in the abdomen; he was not sick, and he was not in a state of collapse. In the course of the evening, severer symptoms came on, and he died on the following morning at 11 A. M. At the post-mortem examination the jejunum was found ruptured near the duodenum, and the sternum was fractured.—*The Lancet,* Dec. 14, 1872.

ART. VIII.—*A Tale of a Nose.*

The readers of surgical works are doubtless familiar with those cases in which the nose is reported, after having been cut off, to have been successfully replaced—in one instance, after a dog had run away with it. An interesting example of the reparative power of nature in such an injury is recorded in last week's *Wiener Medizin, Wockenschr*, by Dr. Malfatti. On November 13, 1871, Lieutenant Preiser, while in barracks, had his nose cut off by a sabre. The wound passed through the middle of the cartilaginous part of the bridge of the nose, dividing the left ala along its posterior third, the septum through its middle, and the left ala two lines behind the anterior angle of the nostril. The piece cut off was taken up from the ground where it lay, cleaned with cold water, and reapplied, being secured in its place by means of sutures. A week after the injury, a dry scab began to form on the left ala, and extended in the course of three days over nearly the whole nose. Granulations gradually formed, healing went on steadily, and on February 1, 1872, careful examination was required to detect any trace of the injury.—*Brit. Med. Journal*, Dec. 21, 1872.

Gynecology and Diseases of Children.

ART. IX.—*The Local Treatment of Cancer of the Female Genitals—Case of Primary Cancer of the Vagina.* By JOHN S. PARRY, M.D., Attending Accoucheur to the Philadelphia Hospital, etc.

[Remarks made before the Pathological Society of Philadelphia, November 14, 1872.]

At the last meeting of the society I presented a specimen of cauliflower cancer, which had been removed from the os uteri of a mulatto woman thirty years old. At the same time attention was called to the fact that the operation for removal had been postponed for three months, on account of the great prostration of the patient, and that Dr. J. H.

Cathcart, who had charge of the woman, and with whom she was seen in consultation, had scraped away almost the whole of the morbid growth, an operation which was followed by the most marked improvement in the condition of the patient. For eleven weeks before this she had been confined to her bed, having become greatly emaciated and profoundly prostrated by the profuse hemorrhages from which she suffered. The growth at that time filled the upper part of the vagina, pressed back upon the rectum, nearly obliterating the calibre of that canal, and extended downward almost to the vulva.

After the removal of all of the morbid tissue which Dr. Cathcart could tear away with a blunt instrument, the flow of blood entirely ceased, her bowels, which had before been constipated, became regular, her appetite improved, and she rapidly gained both flesh and strength, so that three months later she would hardly have been recognized as the same person, so great was the improvement. Indeed, to all appearances she was in perfect health. She pursued her ordinary avocations, went about the city as she pleased, and was strong, cheerful and happy.

At the time the specimen was presented to the society, it was stated that, so far as we knew, this unusual procedure of Dr. Cathcart's was without precedent, and that from the results of the case we had reason to hope that it marked a new era in the local management of malignant disease of the female genital organs. The affection is at best a desperate one, and gynecologists have been led to adopt a purely expectant local treatment, because the manipulations necessary to make applications may be followed by serious and, possibly, even by fatal hemorrhage. But since the last meeting of this society no less than three important papers have appeared upon this subject. The first is by Dr. Munde,* the second by Prof. A. R. Simpson, of Edinburgh,† and the third by Dr. Alfred Wiltshire, of London.‡ Though the second paper reached America before that of Dr. Munde, owing to the delay in the appearance of the *American Journal of Obstetrics*, and though Dr. Cathcart performed his operation in June last (1872), the priority of suggestion must be awarded to Prof. Simon, of Heidelberg. During the last two weeks we have had another opportunity to try this method of treatment; and the portions of the growth which were removed are now exhibited to the

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* *American Journal of Obstetrics*, August, 1872.
† *British Medical Journal*, October 19, 1872.
‡ *British Medical Journal*, November 2, 1872.

society. Though this specimen itself possesses but little interest, the case is an unusual one, inasmuch as the vagina was the organ primarily involved. The patient was a light mulatto woman, about thirty years old, who was admitted to the Presbyterian Hospital a few weeks ago. She is the mother of four children, the youngest of whom is eight months old. She had always been a healthy woman until about six months before the birth of her last child, when she began to suffer from severe pains in the pelvis. Her labor was normal. She remained in bed for two weeks, and then got up, feeling as well as usual. For two weeks everything went well, when she had a hemorrhage from the vagina. From that time until her admission to the hospital she lost more or less blood every day. At times the discharge was very profuse. It was brought on by the slightest exertion. She became greatly exhausted, much emaciated, suffered from severe pelvic pain, frequent as well as painful micturition, and painful defecation. Two weeks before admission she lost the power of retaining her urine.

Her condition when she entered the hospital in November, 1872, was as follows:

She was greatly emaciated, with a clean, pale tongue, poor appetite, occasional vomiting, constipated bowels, and great pain when they were moved. She complains of severe abdominal and pelvic pains. The belly is not distended, and it contains no tumor. There are no pulmonary or cardiac symptoms.

Vagina.—Immediately within the vulva the finger comes in contact with a ragged, rough, but rather soft tumor, which breaks down easily and bleeds freely when pressed upon. In front of the tumor the finger passes upward about an inch and a half, when the growth is found to be attached to the anterior wall of the vagina. A catheter introduced into the bladder is easily distinguished below the growth; but the anterior vaginal wall is found to be considerably thickened. Above the tumor the cervix uteri is distinguished with some difficulty, and is in the usual situation. The posterior lip seems to be quite smooth, but the anterior is rough and covered with short, irregular outgrowths, which break down under pressure. Immediately below the cervix is the best developed or highest portion of the upper margin of the tumor. Below this is a depression, at the bottom of which the silver catheter in the bladder can be felt. Through this somewhat funnel-shaped opening two fingers can be thrust directly into the bladder. The fundus of this organ is easily reached a little above the upper margin of the opening, while the inner orifice of the urethra is

scarcely an inch below the lower one. The posterior and lateral portions of the vagina are not involved. A profuse discharge of blood and thin, offensive pus, runs from the part. Upon separating the labia, some sloughs are to be seen protruding, and above these is the red, soft, warty tumor which the patient says protrudes when she stands for a little time or strains forcibly.

Though the patient was very weak, and though we could not encourage her to hope for more than very temporary relief, it was determined to scrape away all of the morbid growth which could be removed. Being provided with a blunt bone-scraper, an ordinary director with an expanded extremity, a pair of long vaginal scissors, and some Monsel's salt, the procedure was begun. These instruments were but poorly adapted to effect our purpose, and we would suggest that gynecologists who propose to repeat the operation should provide themselves with a set of Prof. Simon's scoops.* Most of the growth was removed with the bone-scraper and the finger, a Sim's speculum having been introduced into the vagina and a catheter into the bladder, the woman being placed in the semi-prone position. As the operation proceeded, the hemorrhage, instead of increasing, diminished in quantity, until we attempted the removal of one of the large masses near the vulvar orifice. Experiencing some difficulty in breaking this down, the pedicle was severed with the scissors. An artery of considerable size was opened, and she bled quite freely. Upon the application of the torsion-forceps the tissue broke down, until more healthy structure was reached, when the flow ceased, after giving the artery a twist. The scraped surface was now covered with Monsel's salt, and a damp sponge, with one side covered with the same substance, was passed into the vagina and allowed to remain there for about four hours. No hemorrhage or abdominal pain or tenderness followed. She remained under observation for nearly two weeks longer, when she was discharged. During this time she seemed to be much better, and had no hemorrhage at all, and less vaginal discharge.

This case is interesting not only therapeutically, but because it furnishes a good example of primary cancer of the vagina; and as such it may be contrasted with the one related to the society by Dr. Mears about a month since. Some may question the conclusion that the vagina was first affected, since the uterus was involved at the time she came under observation. It was affected to such a slight extent,

* *American Journal of Obstetrics*, August, 1872.

while the destruction of the vagina and bladder was so great, that the cervix could hardly have been the starting-point of the malignant growth.

It is of course not claimed that the removal of the redundant portions of cancers of the female genitals by scraping will cure the disease. It will only prolong life by diminishing, or completely arresting, the hemorrhages for the time being. But this is no trivial matter. No symptom of the disease is more important than this one, and, without doubt, it has shortened the lives of many of these unfortunate sufferers. At the same time, the discharge is greatly diminished, because the fungous and disintegrating portions of the morbid tissue are not allowed to accumulate. To achieve this is no trifle, as every sufferer from this terrible disease can testify. It is true that the procedure has to be repeated at intervals; but this is no argument against its utility, as in this disease the physician can only hope to prolong life and diminish suffering.

The operation should be performed with caution until its usefulness is fairly established or disproved. It is not difficult to conceive that it may be followed by pelvic peritonitis under some circumstances, or that, in cases in which the disease had existed for a long time, and much tissue destroyed, adjacent organs might be injured, unless care was employed.—*Medical Times.*

ART. X.—*Remarks on the Use of Ergot in Cases where there is Weakness of the Heart.* By JAMES THOMPSON, M. D., Leamington.

[Read before the Medical Section at the Annual Meeting of the British Medical Association in Birmingham, August, 1872.]

The action of ergot on the circulation of the fœtus has been often discussed, and various opinions have been expressed on the subject. The majority appear to believe that the action on the fœtus is fatal if prolonged beyond two hours, and in this I fully concur. I have never seen any remarks bearing on the action of ergot on the circulation of the mother, and some cases which have recently occurred have forcibly impressed this matter on me. The first case was in a fourth pregnancy, during which the subject had been repeatedly under my care for what she called

"fits of benumbing." These attacks came on suddenly, she could not stand, and saw and heard indistinctly; this was followed by violent palpitation of heart and severe headache; the duration of these attacks was often two hours, more or less. An examination made after one of these attacks revealed great weakness of action, but no valvular deficiency. Tonics were given and she obtained much relief, and the frequency of the attacks was much decreased. When the confinement approached much anxiety was entertained for her safety. Unfortunately there was partial placenta prævia, which caused some hemorrhage—checked by cold and rest successfully. Slight hemorrhages occurred at intervals for two days, while the os dilated slowly. At 7 P. M. on the third day a considerable gush of hemorrhage came down as the os suddenly dilated; the vagina was plugged and pressure applied to the abdomen; the hemorrhage was fully controlled; the dilation of the os proceeded slowly; there seemed to be a want of contractile power in the uterus. With the concurrence of an experienced medical friend, ergot in infusion was given at intervals, which brought on pains, and the fœtus was expelled in three hours, still-born, and the placenta quickly following; no more hemorrhage, and the patient expressed herself as comfortable; and there was no marked symptom that the circulation had suffered more than might be expected. My friend and I congratulated ourselves on the successful issue of the case; but thirty minutes afterwards my patient said; "I fear one of those fits is coming on." The pulse was weak, and she complained of cold and faintness. We ascertained that the uterus was firmly contracted, and that no hemorrhage had taken place. Hot beef-tea with brandy was given at once in liberal doses, afterwards ammonia in ten-grain doses, with ether and other stimulants; but with all, the action of the heart became weaker and weaker still. Mustard poultices were applied hot over the cardiac region, electro-magnetism to the phrenics and through the diaphragm, and subsequently carbonate of ammonia in solution was injected hypodermically; but all was of no avail, and the patient died apparently of syncope three hours and three quarters after delivery.

The question which presents itself naturally is, what was the real cause of death? Was it due to constitutional weakness only? I am strongly impressed with the belief that it was due to the action of ergot on the maternal circulation. I presume the action was cumulative, and that it acted by producing forcible contraction of the muscular tissue of the heart and large arteries. No doubt exists that ergot acts

on unstriped muscular tissue in the uterus—why should it not act on the same muscular fibres in the heart. There was no noted change in the circulation during the progress of the labor; and it may be presumed that when the necessity for the use of contractile power in the uterus ceased, that the action was transferred to the same unstriped muscular tissue in the heart; and in this case there was no doubt irritability of the heart, and that it was liable to suffer from the action of ergot. In a similar case again occurring, I would combine some special stimulant with ergot, in the hope of averting any similar evil consequences. Generally when ergot is given in repeated doses it causes sickness, and the stomach rejects a quantity of ergot which, if it be retained, might affect the maternal circulation. In this case no sickness took place, which may, perhaps, account for its effect on the system of the mother. The lesson to be taken is that, we should prescribe ergot with great care in cases where the circulation is weak or irritable.

A second case took place soon afterwards. A lady, mother of six children, summoned my assistance for uterine hemorrhage. She was not aware she was pregnant, but circumstances pointed out that she might be so, and of six weeks standing. Liquid extract of ergot was given, ice-bags applied, and cold water injections to rectum and vagina; the other usual injunctions were given, but little benefit resulted; considerable hemorrhage took place still and this began to tell on the patient; giddiness, palpitation, etc., appeared. I then gave ergot in infusion fresh made; this proved powerfully styptic for the hemorrhage, but my patient suffered most violent palpitations, tightness in chest, and feeling of suffocation. When the palpitation ceased, the pulse-beat was 55 per minute, and the feet and hands were very cold, and the patient said there was considerable loss of power in the lower extremity. I am forced to think that the ergot acted on the maternal circulation; and so hampered its movements that the force of the circulation was much less than it should have been.—*British Medical Journal.*

ART. XI.—*Death During Criminal Abortion.*

The following case is reported in in the *Journal of the Gynæcological Society:*—

Four days since Dr. Ross had been called to see a lady who was supposed to be in a fit, and found her dead. She had suddenly fallen lifeless upon the floor; at her side there was lying a Davidson syringe, with the male tube on; this tube was of hard rubber, and had been broken by the fall. There was also on the floor a smaller hard rubber syringe with its piston broken. They were both of them perfectly dry, and as the patient was pregnant, they had therefore evidently been employed for detaching the fœtal membranes from the uterine walls by the injection of air. The probabilities were that an attempt to employ the smaller syringe had first been made, and that upon this having become broken, the larger one had been employed with the result of instantaneous death.

An autopsy had been made upon the following day. The uterus was found to contain a fœtus of some five or six weeks. This was now also shown to the Society, the membranes being still unruptured. These had been detached from the uterus at several points previous to the examination being made. This had evidently been from the effect of the fatal measures that had been resorted to. There could be no doubt that it had been performed by the woman herself.

Dr. Warner remarked that this was the second case of death from the introduction of air into the uterus with a criminal intent that had come to his notice. The other had occurred at St. Louis.

Dr. Ross was aware of but one other case, that reported by Dr. Hitchcock, of Michigan.* He would like to know what was probably the exact cause of death in the present case.

Dr. Blake thought there could be no doubt that it was from the introduction of air into the uterine sinuses.

Dr. Storer stated that in the early months of pregnancy this explanation was by no means necessarily the correct one. Unless the placental portion of the ovum was detached, there would be no vessels of any size opened into which air could be thus forced. It would be recollected that the Society had discussed this question at some length on a former occasion: There were several possible

*Transactions of the Am. Medical Association, 1864, vol. xv., p. 84.

causes of instantaneous death under the circumstances that had existed and it required no little discrimination to distinguish between them.

Dr. Field asked Dr. Ross if an examination had been made of other organs besides those of the pelvis.

Dr. Ross replied that there had been. Especial attention had been paid to the condition of the heart. Embolism did not seem to have existed; indeed, there had not been time for it to occur before death took place.

Dr. Field asked how it were possible, even granting that it had been the cause of death, for a bubble of air so instantaneously to stop the action of the heart.

Dr. Storer replied that of course there must have occurred either spasm or paralysis of a portion of the heart. Arguments had been adduced in favor of both these views, and he doubted if the question had as yet been definitely settled.—*Med. & Surg. Reporter.*

ART. XII.—*Nature and Treatment of Vaginismus.* By DR. MACK, of St Catharines.

[Read before the Medical Society, St Catharines, July 3rd, 1872.]

This extremely annoying disease is so perfectly under the control of the surgeon, that it should be placed among the well recognized forms of complaint, for which his resources are called upon. Efforts have been made of late to call in question the propriety of Sims or Simpson's operations, based doubtless upon cases of abuse.

Having operated in all, about ten times, I would now submit a condensed history of two typical examples of the disease and its treatment.

Mrs. G., married 18 months, menstruation regular and normal except in being attended with some dorsal and hypogastric pain. Sexual intercourse extremely unpleasant and painful, yet tolerated, although with much repugnance; her husband complained to Dr. M. that his married life had been very far indeed from what he had expected it to be. Examination per vaginam proved to be very difficult from the great sensitiveness of the ostium vaginæ; examination by the speculum was not to be attempted without anæsthesia. The Carunculæ Myrtiformes and remains of the hymen were florid and large, but the seat of most exalted sensation

appeared to be at the fourchette accompanied by spasm of the sphincter vaginæ. Examination under chloroform showed symptoms of endo-cervicitis.

The following day full insensibility having been produced, I introduced two fingers of my left hand, and having divaricated them so as to put the parts fully on the stretch, I made two incisions so that they should represent the letter Y, the oblique part of the incisions commencing about two inches up the vagina, about one inch from the mesial line along the posterior wall, dividing the mucous coat and after being continued to within less than one inch from the perineal surface, then carried straight in the mesial line, and dividing the soft parts freely for about half an inch from the raphe perinei the same oblique portion of the incision was then made upon the opposite side.

Pledgets of Charpie soaked in a weak solution of Persulphate of Iron were placed in the incisions, and a compress secured by a T. bandage; the strictest quiet, and rest in bed were enjoined. Cold applications of lint, wet with iced water were kept up, the bladder being relieved every 8 hours by using the catheter. After forty-eight hours the dressings were removed, and one of Sims' glass dilators directed to be introduced occasionally, and retained for about two hours. Four days after the operation, the use of the dilators proving extremely painful, full anæsthesia having been induced again, the remains of the hymen were carefully and thoroughly removed by a small curved scissors. No hemorrhage followed, and in about 24 hours the dilators could be tolerated. Two weeks after the first operation the local treatment for the inflammatory condition of the cervix uteri was commenced, and after about two months treatment a complete cure was affected, resulting in the birth of a healthy son in less than ten months. This case is one of the milder type, the next is a fair sample of the more severe forms of the disease.

Mrs. M. married about three years, without issue, declares that perfect connection has never been effected. Her husband has been morbid and unhappy, and the matrimonial alliance is likely to terminate in great misery for all parties. Examination per vaginam could not be thought of, the attempt was violently repelled by involuntary struggles. After inhalation of chloroform, examination disclosed the hymen partially ruptured, and the entrance of the vagina rigid, and small as in the virgin state, keeping up the anæsthesia the incisions were at once made as already described, and then immediateiy the remains of the hymen were carefully dissected away. Persulphate of iron was

applied to the bleeding surfaces, and a small glassi dlator was introduced and maintained by compress and bandage.

In 24 hours the dilator was removed, wet compresses applied, and 48 hours after the operation a larger dilator was introduced for about twelve hours. From this time, for about fourteen days, the dilators were inserted, gradually increasing their size at intervals of about two hours, and retained about two hours each period. A speculum was then introduced, and local treatment directed to a slight endo-cervicitis which yielded in the space of six or seven weeks.

The lady returned to New York, her residence, and in less than one year from that time, she gave birth to a fine healthy infant.

The first report of any treatment for this distressing neurosis is to be fonnd in Burn's principles of midwifery where in the portion of his book assigned to describing the anatomy of the pelvis, and when treating of the pudic nerve it is stated: "The pudic nerve, after rëentering the pelvis gives off several small branches, which go to the obturator internus, spincter ani, and extremity of the rectum. It then divides into two. The trunk as it may be called, runs forward with the artery to the clitoris, covered as it proceeds along the rami of the pubis, by the erector.

The other division is distributed to the perineum and vagina. It approaches the vagina nearly in a line with its junction with the perineum, and subdivides and ramifies on the end of that passage, but chiefly on its orifice.

This nerve is often preternaturally sensible, so as to cause great pain in coition as well as at other times. It may be exposed by cutting through the skin and fascia, at this side of the labium and perineum beginning in a line with the front of the vagina orifice, and carrying the incision back for two inches. The nerve being blended with cellular substance, is not easily seen in such an operation, but it may be divided by turning the blade of the knife and cutting through the vagina to its inner coat, but not injuring that. It may be more easily divided by cutting from the vagina. Slitting merely the orifice of the vagina will not do. We must carry the incision fully half an inch up from the orifice of the vagina, and also divide the mucuous membrane freely in a lateral direction.

In another place he tells us that the sensitiveness is sometimes dependent on little tubercles or inflamed patches at the orifice, in which case, we may try the free application of nitrate of silver with or without scarification.

But if there be no tubercles, and especially if there be

tightness at or within the orifice we must in one or more places divide the mucous coat, as high as there is anything like a band.

Dr Neftel reports a case successfully treated by electricity. Dr. Mahend also in his book "*Sterilite chez la Femme,*" reports a success from the same mode of treatment.

There are other cases of pain in coition, distinct from vaginismus which must be borne in mind, *e. g.*, painful affections of any of the parts adjacent to or contained in the vulva, inflammation of Bartholine's follicies.

The operation performed by me depends, I believe, wholly for success upon the after treatment, by keeping up dilatation for all of which we are indebted to the practical ingenuity of Dr. Marion Sims.

I wish to be clearly understood that I do not advocate the performance of this operation in all cases of vaginodynia indiscriminately, but in cases where it is not due to hysteria curable by constitutional measures, or to fissures and sores of the vulva, eruptions or neuromata, vaginitis or metritis in any of its forms capable of treatment. locally or generally, or to tubercle of the meatus urinarius, but rather to those cases dependent upon spasm of the spincter vaginæ with an excessively irritable condition of the nervous filaments. Emmett divides the fibres of the sphincter, and the tense corded band usually to be found at some part of the vaginal wall.

I do not think that vaginismus depends wholly upon spasm of the sphincter vaginæ, but upon pain in the faciæ and muscles deriving sensation from the branches of the pudic nerve and which must, of necessity, be divided and kept from re-uniting by the method of Sims'.

Debout, Chamie and Muhon all recommend the operation as described by Burns. Simpson operated subcutaneously with a tenotome.

Menville de Pouseen recommends when the affection will not yield to constitutional and local mild remedies, cauterization of the inferior portion of the vaginal orifice. Lisfranc reports a case cured by bougie. I have seen belladonna, atropine and the glass dilators succeed, but in our devotion to conservative surgery, we must draw the distinction between that and no surgery, and remember that the cruelty lies in losing time and creating suffering from months of futile efforts at gradual or forcible dilatation or wearing out the patience of all concerned with quantities of medicaments consigned to the stomach, local baths, poultices or ointments.

Pregnancy would prove a sure remedy, but I think it unlikely that the indelicate proceedings of anæsthetising a woman and leaving her to the marital embrace, as reported by another practitioner, would prove very difficult to reduce to general practice.

In conclusion I would state that with one exception, the cases I have met with were found among that class of society in which the intellectual faculties are too often exercised at the expense or neglect of the physical.—*Canada Lancet.*

Ophthalmology and Otology.

ART. XIII.—*Report of Cases in Ophthalmic Practice.* By WM. F. SMITH, M. D., San Francisco.

CASE I. *Tattooing the Cornea.*—H., an inmate of the city and county hospital entered the ophthalmic ward in the following condition: A large leucoma existed on each eye with anterior synechiæ, the result of a purulent ophthalmia. The disease had occurred while he was in the city of Liverpool some years ago, and after recovering from the more violent inflammatory symptoms, the surgeon in charge had made two iridictomies, but both were made in a direction upwards and outwards. In the right eye the best result had been obtained, but from the fact that the artificial pupil was almost entirely hidden by the upper lid, and from its position necessitated such an unnatural visual line even when the lid was held away from it, and also from the fact that the cornea was somewhat conical and very irregular as to its surface; the patient enjoyed a degree of vision, very unsatisfactory. A very narrow iridictomy forming a slit-shaped pupil in the lower and inner quadrant of the iris very materially improved the vision of this eye. The other or the left eye was almost completely useless as the greater portion was covered by a leucoma very thick and unsightly. The artificial pupil which had been practiced upwards and outwards behind the small portion of transparent cornea which still existed, was filled with a plastic exudation, now

organized, and which were the sequilæ of a former iritis which evidently existed after, and probably resulted from an extensive perforation of the cornea in the course of the purulent conjunctivitis.

Evidently nothing could be done to improve the condition of the vision of this eye, but it occurred to us that his appearance at least might be improved by means of the ingenious little proceeding of *tattooing* the cornea with india ink, so lately practised quite successfully in England and on the continent of Europe. Accordingly a piece of the purest india ink was procured, and a space as near as possible to the size and position of a rather large pupil was tattooed, using for the purpose a half dozen fine cambric needles firmly tied together and bound with silk cord so that the little instrument could be handled with facility. The small amount of irritative produced was surprising. The first sitting occupied at least fifteen minutes, and the ink was thought to have been very thoroughly impregnated in the cornea, but at the next visit to the hospital the painted pupil was far from being perfectly black, and the little pencil of needles was again brought into play, and the proceeding was not considered perfect until after the third sitting, when it was found to be as black as could be desired. The whole process occupied only ten days. A few drops of the solution of the sulphate of atropia were used daily in order to control inflammatory action, but there was apparently no need of this as there was no photophobia, and only a very slight conjunctival peri-corneal injection. The patient expresses himself highly pleased with the cosmetic effect, and states besides that the opperation has relieved him from a very annoying glimmering which always existed when looking at even a moderate light, and he very naturally imagines that it has been the means of improving his vision. As to the general considerations concerning this very interesting little process, I cannot do better than quote from a letter written by Dr. L. de Wecker to Dr. A. V. Reuss, and which I have taken the liberty to translate from the *Annals D'Oculistique* for January and February, 1872.

"*Tattooing of the Cornea.*—Permit me to direct your attention to some details of this little operation, and to

insist on the small amount of pain and irritation that it occasions and the durability of the coloration. After having tattooed the cornea more than twenty times, I believe that I am able again to declare that this little operation is not painful, in view of the insensibility of corneal cicatrices. Even after a sitting, there remains less irritation than after the application of a solution of lunar caustic for an affection of the conjunctiva. I point out this circumstance, because this operation, which has only a cosmetic indication, and which should be renewed several times, would certainly not be accepted, in practice, if the patient was required to suffer much. Now, the annoyance it occasions, consists in that which results from the application of the wire speculum (*blepharostat*) and from a light fixation of the ocular bulb. The patient may resume his occupations, immediately after the tattooing. It appears to me to be useful to remark, that I make the punctures very obliquely in the most superficial layers of the cicatrix; that I content myself with making ten to fifteen punctures at a sitting, and that I recommence only at the end of eight days.[1] Four to six sittings are ordinarily sufficient. It is of some importance not to tattoe very recent cicatrices, those dating only from some months, as eyes which bear them, generally react against it more easily. It is, besides, necessary to use very pure China ink. (That which I use was presented to me by a French colleague, who had taken it himself from the desk of the Emperor of China, at the pillage of the summer palace.) In regard to the intensity of the coloration which should be obtained by means of the tattooing, I believe that it should not be considered sufficient, as you indicate, to give a white cicatrix 'a grayish aspect less shocking,' but that it is necessary to arrive at changing a very apparent white cicatrix into a scarcely visible black surface.

"It was in this manner that I treated a patient, of whom, after the cure had terminated, it really required an attentive examination to distinguish the black spot from the neighboring artificial pupil. The resistance of the cicatricial tissue, more or less great, renders the tattooing more or less difficult, and soft cicatrices are found in which the coloring matter diffuses itself and spreads with an astonishing facility, whilst other old and hard cicatrices (incrusted with calcareous salts) are very rebellious to the tattooing.

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[1] It will be noticed by the above report, that I held the sittings at intervals of only three to five days, and that perhaps as many as fifty or a hundred punctures were made at each one, and still hardly as much irritation as that caused by the application of a caustic solution was evidenced by the patient, much to the surprise of those who had witnessed the operation.—AUTHOR

"As to the durability of the coloration, I can cite a patient in whom the black coloration has persisted during twenty months. In a single case, the black tint changed, after six months, into gray, even to the point, that the points of puncture were no longer visible by means of the lateral oblique illumination. This occurred in a lady twenty years of age, who had consulted me in April, 1869, for a very violent purulent ophthalmia, with rupture of the left cornea. After cure of the conjunctival and corneal affection, leaving a large leucoma, I made, in the month of August, an artificial pupil upwards and inwards, and one month later, the tattooing of the cornea in four sittings. It might be said with some reason, that a great service had been rendered to this young and flourishing woman, since, with the visual reestablishment of the eye, she had been disembarrassed of a shocking deformity. When I again saw this patient, six months later, the leucoma had acquired a general grayish tint, and I should not have hesitated to recommence the tattooing, if the patient had not declared herself well contented with the result obtained. I believe, then, that even with the probability of being forced to recommence after some time, one may recommend this little operation to all patients having a deforming cicatrix of the cornea.

"*Editors Note.*—We agree entirely with this conclusion. The service rendered is even greater than our author has said, and in order to doubt it, one must never have seen the satisfaction procured to those operated upon; very often one receives women, young or old, beautiful or ugly, carrying partial *leucomæ* which intercept the view, and they come to demand their cure; but by that they mean, not the restitution of the vision, this is a detail, but the disappearance of the spot which spoils their physiognomy. To send them away—it is understood that we speak of cases where one eye only is deprived of the vision—with the restoration of this (*the vision*) and maintainence of the deformity, is only to render them a very secondary service, and which keeps them very cold and very little sensible as to the volume of gratitudes. The spot having disappeared, the scene changes, the physician has become a savior. We have practiced the tattooing of the cornea twice after a successful iridictomy, and the success of the latter has only been judged complete and appreciated after the result of the tattooing. The operation is not painful, and we make it with the partially grooved needle (*canelure mediane*) which has been sent to us by M. de Wecker, without the wire speculum or fixation of the globe. We envelope the thumb and index finger of the left hand with a piece of old

linen; thus covered they are applied to the everted lids, preventing the globe from rolling and from displacing itself and preventing the flow of tears. We take care also to commence by the most inferior punctures in order to prevent the diluted ink, by its flowing, from masking the field of subsequent operation. In the cases appertaining to us, we have experienced no inconvenience in repeating the punctures after a single day of interval. Our two patients, at the moment they left us, had *leucomæ* strongly *speckled* with black. By multiplying the sittings the result might have been improved, but they were content as it was, and in reality their deformity had, so to speak, ceased to be apparent."

CASE II. *Successful Operation for Removal of an Extensive Pterygion.*—G., *aet.* 48, laborer. Consulted January 3, for complete blindness of right eye; was barely able to distinguish light. On examination, found the entire cornea covered by a growth which had apparently arisen from the union of two pterygions, which had advanced across the cornea from either side until they met and covered the pupil, and the excrescence evidently had taken its rise from the irritation produced by the lids. It seemed to have somewhat the nature of the cauliflower excrescence, and was lobulated and about one half a line in average thickness. The conjunctiva was much congested and hypertrophied by the long continued irritation of the parts. The patient stated that during the last five years this condition had been constant, and, of course, the usual account was detailed of measures tried and physicians consulted, etc., without benefit. After some deliberation, the patient concluded to place himself under surgical treatment for the deformity, and, accordingly, on the next morning, the following rather extensive dissection of the parts was made. The growth itself was first separated from the cornea as completely as possible, with the lance-shaped iridictomy knife; after which the two pterygions were also cut away from the cornea, the sub-conjunctival tissue was divided with the scissors as far back as either canthus, and then a few cuts with the scissors was sufficient to separate the thickened false membrane from the conjunctiva as far as the bases of the growths. A needle armed with silk was now passed through

the free apex of each pterygion, and after it was thus held in a loop of thread, the free ends of the thread were armed with a needle and then carried under the healthy mucous membrane, so that while one growth was drawn under the conjunctiva, with its apex near to the lower end of the vertical diameter of the cornea, the other was placed with its apex near to the upper end of this diameter; after which the conjunctiva proper was drawn over the denuded part of the globe by sutures placed in convenient positions. It should be remarked, that in drawing the conjunctiva over the denuded portion of the globe, the incision should not be made parallel to the periphery of the cornea in dissecting of the conjunctiva from the globe, but should be made in the direction of, and perpendicularly to, the line of the cul-de-sac, so that in drawing together the flaps of the mucous membrane, it may not encroach upon the cornea, and thus produce inflammation unnecessarily, as well as retarding the healthy cicatrization of the part by contact with the free epithelial surface of the cornea. Chloroform had not been administered. The patient was directed to keep the horizontal position, and to make occasional applications of cold water by means of pieces of patent lint. No violent inflammatory processes resulted, no œdema or hemorrhage. The different wounds seemed to heal kindly, and the stitches were removed after three days. Contrary to the most sanguine expectations, the cornea seemed tolerably clear. There was no keratitis, but a solution of the sulphate of atropia had been regularly instilled three times per day as a prophylactic measure. A few opaque masses, however, still adhered to the cornea, which were treated by applications of the brown citrine ointment.[1]

After three weeks, the patient was able to see No. 20 of Suellen's test-type quite readily, and at this date, he says that he is hardly able to say with which eye he can read or

[1] This ointment, first used, I believe, by Dr. E. Williams, of Cincinnati, having been compounded by Mr. Wayne, of the same place, is made exactly after the formula for the Ung. Hydrg. Nit. of the U. S. Dispensatory, with the important exception that instead of the Neats foot oil of the formula, the same quantity of the purest cod liver oil is used. The preparation is exceedingly useful for all opacities and ulcerations of the cornea.

write with the greater ease. After reflecting upon this operation, which was undertaken, it must be acknowledged, with very little hope of success, the principle merit consisted evidently in the careful and exact dissection of the heterogeneous mass from the surface of Bowman's membrane; for if this membrane or layer of the cornea had been cut or torn away from the cornea proper to any extent, the transparency of the latter could not have been maintained, and opaque cicatrices would have inevitably resulted. A few such opacities, though very small, may be seen on the cornea of our patient, but, fortunately, they do not exist over the pupil, being situated nearer the periphera.

ART. XIV.—*Two Cases of Cysticerus Cellulosæ in the Human Eye.* Dr. J. Hirschberg, of Berlin, Virchow's Archives, vol. liv., Parts 1 and 2.

In one case, the worm was in the deep portion of the vitreous humor; in the other, it was in the anterior chamber of the eye. After the worm had been detected by means of the ophthalmoscope, an incision was made in the sclerotic, as for the extraction of a cataract; then iridectomy was performed, and the crystalline lens was slowly and completely extracted while the patient was still in the horizontal position.

The upright position was then assumed, and a small hook was inserted into the vitreous body, and the entozoon dragged forward until it was visible to the unaided eye. By causing the patient to bend forward, the edges of the sclerotic wound were made to gape, and the worm slipped out upon the table. The wound healed by first intention, and the form of the eyeball has been completely retained.

The second case is important, since it demonstrates that the position of the parasite may be mistaken for one of the lamellæ of the cornea, when in reality it is in the anterior chamber of the eye. Both parasite and patient were very young; the former about twelve weeks, and the latter two years. An incision was made in the inferior portion of the cornea, and the cysticercus extracted head-foremost. Under gentle pressure and instillation of atropine the wound healed in two days, and the sight remains normal.—*Med. & Surg. Journal.*

ART. XV.—*On the Extraction of Cataract.* By HASKET DERBY, M.D., Boston.

While extremely glad that Dr. Williams has called the attention of the profession* to the new operation for cataract, strongly advocated and largely practised by Liebreich, I am unable to coincide with the criticisms he offers on the method of Graefe.

The peripheric linear method was brought forward by its distinguished author as a substitute for the ordinary flap extraction, and was considered, not only by him, but generally by his scholars and followers, to combine a larger measure of success with fewer attendant dangers than that operation, which it succeeded in almost completely crowding out of sight. The consequent general abandonment of flap extraction can hardly be better illustrated than by quoting from Warlomont's notes of his visit to the recent Ophthalmological Congress at London.

He says:

"Bowman, the king of operators, appears abandoned to the most absolute eclecticism. He, so to speak, chooses for each case singly the procedure to be employed. We have even seen him—*horresco referrens*—do several flap extractions, without the least iridectomy, in a word the classic operation, and never once blush. But then what wonderful dexterity!" †

The operation of Graefe is probably more largely practiced than any other at the present day, especially on the continent. The disposition to seek out a better one is no doubt universal, and when that better one is found, the striving after perfection will none the less exist. For the present, the question is whether a safer method, that promises as good or better results, has actually been discovered.

Dr. Williams charges Graefe's operation with involving, *first*, a wound so near the ciliary region that sympathetic opthalmia is a possible danger; *secondly*, with causing a chance of separation of the retina; and, *thirdly*, with involving a possible loss of vitreous. The relative frequency of such accidents can be estimated only by referring to tabular statements of the performance of the operation. I find most convenient for this purpose Prof. Knapp's series of 300 cases, ‡ Dr. Snellen's of 208, § Dr. de Wecker's of 86,

* Journal of December 5th.

† Annales d'Oculistique. Juillet-Aout, 1872, p. 32.

‡ Archiv. für Ophthalmologie, 13, i. 85. Ibid., 14. i. 285. Knapp's Archive, vol. i. p. 103.

§ De Operatie der Senile Cataract. Utrecht. 1871.

done during the second semester of 1871,* and the notes of 92 occurring in my own practice, forming an aggregate of 686 cases, all carefully recorded and thoroughly analyzed, with the ultimate result noted in every instance. †

In 21 of these 686 cases the eye was lost. *Sympathetic opthalmia occurred in no instance. Separation of the retina but once*, and then in an eye laboring under sclerotico-choroiditis posterior.

Vitreous was lost 112 times. This number seems very large, but it must be remembered that not only the slightest losses are recorded, but that when the operation was new the exit of the lens was accomplished with much more difficulty than at present, traction instruments having frequently to be employed. As the method of accomplishing the safe delivery of the lens became more generally understood, the frequency of loss of vitreous gradually and steadily diminished. Prof. Knapp met with this accident 23 times in his first 100 cases, 18 in the second, and 9 in the third. Dr. de Wecker had but five escapes of vitreous in his last 86 operations. It is, I think, now generally admitted that vitreous is, to say the least, as little likely to be lost in doing Graefe's method as in ordinary flap extraction.

These figures, therefore, do not support the theoretical objections urged against the peripheric linear operation. More carefully prepared tables than those from which I have quoted it would be difficult to find.

Dr. Williams very justly alludes to the necessity of the removal of a piece of the iris as an objectionable feature of Graefe's method. That an iridectomy is to a certain extent a deformity, and that it somewhat impairs the acuteness of vision, no one can doubt. But that it is a safeguard against some of the accidents and processes most dreaded after an extraction, will now generally be admitted.

We should all be open to conviction. I will frankly admit that the results of the new operation which I witnessed this summer at the *clinique* of Liebreich in Paris, and the numerous cases in which I saw him perform it, inspired in me an earnest wish that this might prove to be the operation of the future, and have caused me to enter on its performance since my return. For facility of execution, slightness of anatomical injury or pain inflicted, and personal independence of the operator of assistants, anæsthetics and apparatus, it unquestionably bears away the palm.

* Annales d'Oculistique, Mars-Avril, 1872, p. 157.

† Writing hastily as I do, I regret not to be able to quote our series of over 60 operations performed and recorded at the Massachusetts Charitable Eye and Ear Infirmary during the past year.

The only question that arises is, as to the statistics of success it will, on the whole, furnish. On all who are interested in a decision of this question I cannot too strongly impress the importance of a thorough record of all cases, a statement of the age, sex and condition of every patient, diameter of cornea, dilatability of pupil, perception of light and projection, notes of operation, incidents of after treatment, and, finally, a careful record of vision for the far and near. While general statements make but a slight impression, the scientific accuracy afforded by the collation of such data is indisputable.—*Boston Medical and Surgical Journal.*

ART. XVI.—*The Extraction of Foreign Bodies from the External Ear.*

Dr. Jos. Gruber (*All. Wien. Med. Zeit.*, 15th Oct.) says that since empiricism was abandoned in treatment of diseases of the ear, physicians have become convinced that the extraction of foreign bodies from the external ear should almost always be made by injections, and that it is only in the very rarest cases that instruments should be made use of. The external ear is so constructed that in the way in which ordinarily foreign bodies are introduced into it—which, as is well known, takes place in children during play—the body introduced does not go far in, and is so loose that it can be brought away by an ordinary injection. Where the cartilage joins the bony part of the ear, the diameter of the canal is narrowest, whereby the entrance of larger bodies into the deeper portion is much hindered; besides which the axis of the auditory passage is bent at an acute angle, and the corner of the angle takes place at the narrowest point. In this peculiarity we must seek the cause why large foreign bodies rarely get beyond the cartilagenous portion into the deepest section of the passage, and, therefore, in the majority of cases, can be very easily extracted. Notwithstanding all this, it is by no means rare to find that dangerous results take place from attempts to remove such bodies by all sorts of instruments. Hair-pins, pincettes, and even scissors are often used in the most dangerous way to attempt extraction, which may, any of them, cause dangerous accident to the patient. Such operation has the further disadvantage that they make extraction by simple injection more difficult; so that an ear doctor is always glad to hear that the patient has not been meddled with until brought to him for inspection.

The washing out of the auditory passage, if it is to be made well and the end will be well considered, is by no means so simple and easy as it appears in general; and persons who are well acquainted with the art will confess that this requires as much practice as catheterism of the Eustachian tube, and that in order to arrive at the goal by injection, he that is best acquainted with the anatomy of the parts is most likely to succeed.

It is best in all cases, unless the foreign body be likely to do injury through its chemical properties, to let it alone until any inflammation caused by instrumental interference be a little calmed, before we commence injection to remove it. A boy at school put a small foreign body into his comrade's ear, and pushed it deeply by means of his pencil. Pain soon after came on, and a physician, after attempting extraction by means of instruments, fruitlessly, prescribed an anodyne medicine. Five weeks after, the patient visited Dr. Gruber, much brought down in health, and feverish. The parts about the right auditory passage were much swollen, inflamed, and the passage thereby much narrowed and filled with exudation. After removing the latter, there was seen, deep down, a dark brown body, which lay very deep. The washing out of the passage was likely, in this case, to be useless, and we confined ourselves to cause the inflammatory process to disappear first of all; and then, when the auditory meatus was larger, to use injection. To do this, a wash of morphia and acetate of lead was used, and cold compresses were ordered behind the ear, and the cleansing of the auditory passage by injections with tepid water was used once a day. During the injections a portion of the water from the very first came through the nostrils, which showed that the membrana tympani was at any rate perforated.

After the symptoms of inflammation had disappeared the foreign body was also more clearly seen, but its extraction by washing out of the auditory passage was not yet possible, so that smaller pieces of compressed sponge were inserted in order to widen the passage; and a solution of sulphate of zinc (five grains to the ounce) was dropped into the ear. In the month of December, that is after the stay of the foreign body for three months, it came away after a simple injection of tepid water. The issue of pus had ceased for some weeks, although the foreign body was still *in situ*, and when that was removed the membrana tympani was seen degenerated like a cicatrix, but not perforated. The perforation had healed up whilst the foreign body was still in the ear.—*Med. and Surg. Reporter.*

Editorial.

If it were possible to impress upon the minds of every physician and surgeon in the land, the fact that medicine is striving to be a science, that the laboring elements in the profession are making every exertion to elevate the calling, to lop away the withering branches of superstition, to nourish and support every twig of truth in order to make the practice fit to take rank as an exact science; then we might, almost with certainty, look forward to a happy age, when the surgeon or physician, like the contractor or builder of to-day, will calculate from the foundations existing, the span of life; and how different would be the character of the labor performed. In our great (in extent of territory) and free (in licensing favors) country we are so very practical that the great majority of practitioners consider themselves as plying a trade with an eye single to the "making of money," rarely entertaining the thought that humanity has a claim upon their labors, or that the future of our race depends upon their acquirements of knowledge, not of cash. Unfortunately too, so much of the old spirit which created the value of the amulet among the ancients, exists among the people of to-day, that the brazen falsehood in the mouth of a charlatan often attracts attention and even respect sooner than a truthful precept uttered modestly by the real student of science. The peculiarities of our nation are such that the aim of the young man in choosing a calling or entering a profession is only to tread the easiest path to affluence, because it is considered that the only reliable passport to honors, municipal and social, is the possession of money. However, there are a class of young men in the world who have not been taught that the great desideratum of life is the acquisition of riches, and who are not forced to hurry through the lecture and dissecting rooms, when their tastes prompt them to undertake the study of medicine. Their aim is to gain reputation or perhaps fame in the study and development of a science, and as earnest

study must cause the subject to become fascinating, they linger in the laboratory, the dissecting room, or by the bedside, with such spirits as those of Tyndall, Helmholtz and Virchow. These students are the bulwarks of our science, and their often hastily uttered though mature reflections, are instantly appropriated through the length and breadth of the medical world. But nature, with her physical laws and pathological wonders, does not exist only in London and Berlin, and if one region more than another does offer peculiar facilities for the patient study of nature in her moods of health and disease, that region, it must be conceded, is our Western Coast, and sooner or later, scientific men will congregate here from all quarters to enjoy the facility for observation afforded by our equable climate and reliable seasons; the comforts of a dissecting room easily kept cleanly and disinfected during the months of July and August.

We have recorded these reflections for the purpose of calling attention more thoroughly to the incongruous elements which seem to be peculiar to California. Our State government does not support large colleges with liberally endowed chairs in the different branches of our science, nor does our population furnish material for extensive clinical advantages for large numbers of students, but we believe that we can say that there are an unusually large number of educated men in the different departments of medicine, and also an unusually large variety of affections presented in such clinics as we do possess or are able to develop. As to the first part of our proposition, we have only to point to the fact that a practitioner, in order to be entirely successful here, must be master of at least three or even more different languages; and the second part will be readily conceded when we call to mind the eminently cosmopolitan character of our population.

Now, it is evident that the profession, by unity of feeling and labor, can be made a power felt here and respected abroad, and this must be done through our medical societies if it is done at all. A good number of these societies are organized and are doing a great deal of good, and we are

glad to say that some of them are even models of perfection in unity of feeling and harmonious action. This is especially true of the society in Sacramento, the example of which should be emulated, as unfortunately the profession of San Francisco cannot as yet claim the credit of sustaining such a body. In this city there are three societies, representing so many *cliques*, and containing within themselves *sub-cliques*, which actually prevent that harmonious action which is the strength and power for good that should be the object of such associations. When men meet together for scientific discussion, politics, religion, personal feeling and prejudices should be entirely disregarded. No one man nor a minority should stubbornly persist and refuse to act simply because a point of personal feeling, or crotchety impression, or opinion, is in dispute; nevertheless, this has been carried to such a point that at a late meeting, a prominent member of the San Francisco Medical Society refused to countenance an exchange of civility with a neighboring body simply because it was the wish of the majority that wine should be an article on a proposed *menu du diner*. The persistent party actually carried his point and the affair was postponed, and an opportunity for the exchange of friendly feeling, and for the exhibition of gentlemenly impulse was neglected. As if an intelligent educated body of gentlemen, supposed to be entirely capable in the exercise of its judgment, were not able to practice principles of *temperance* in the use of every good thing nature has placed in *our* power. It would be even more sensible perhaps to enforce total abstinence in the use of *lobster salad*, undoubtedly to be recommended by old ladies at a school picnic, as a sanitary measure for that minority not able to control their appetites than to enforce it in the use of wine.

In the valedictory address of the late President of the above mentioned society, it was recommended that a fund be set aside for the purpose of founding a home or club-room for the society, which should be the repository of a library and museum, and which should be continually open to all members for purposes of friendly communication and individual improvement. The library and museum would

be continually enlarged and all the advantages of an extremely valuable and extensive collection of authorities would thus in time be secured to each individual member. Public clinics and popular lectures might in time be added and thus an influential and powerful medical institute might be formed, which would be a credit to our city, even though its future growth should exceed our most sanguine expectations. We hope the suggestions of our esteemed confrére, Dr. Morse, will meet with the consideration they deserve, and we are sure that the other medical factions existing here would gradually become merged in a movement so well calculated to promote the best interests of our professional community. Every thinking man is continually making new observations which are of general value and should become general property, and no one should imagine that earnest labor will not be appreciated. "Talent," or rather intellectual power, be it great or small, "finds its level as certainly as water does." Every one of us must entertain convictions as the result of experience, and every conviction of a truth should not only be recorded in the memory, but even for our own individual advantage, should be noted down, and the small additional labor of communicating an ascertained truth will amply be repaid in its mere recognition by our co-laborers. However humble we may feel ourselves to be plodding along in the path of science, our footprints alone are a source of encouragement to others, and every "jotting by the way" which peculiar opportunities may cause to be original is valuable in the archives. Vanity is not a characteristic of the real student, and this fact alone will prevent him from attempting to gain notice by voluminous repetitions, and the labor is too great to tempt most men to risk writing fiction in medicine merely for the sake of seeing their names in print. In fact, every incentive that we could enumerate exists in the present age to cause workers in the field of truth to be jealous of the opportunity of communicating the results of their labors. We hope that the members of the profession here and on the coast will no longer hold back and shirk the duty of doing their share for the general cause, on account of personal pre-

judices or feelings of a false modesty. We hope especially that physicians in our city will soon take a different course with relation to one another and to the public; that our societies may coalesce and the *cliques* be abolished, and that personal or political feelings will not prevent men from meeting together frequently for the purpose of instruction, discussion and the earnest pursuit of truth. Nothing could give us greater satisfaction than to be permitted to be the impartial medium by which such discussions and observations may be presented to the profession at large.

Miscellaneous.

Meeting of the San Francisco Medical Society, January 28, 1873.

Dr. Bentley presented a specimen from an autopsy he had lately made, and gave the following very brief history of the case: A gentleman had come to the city from the East, on a visit in which he combined pleasure and business. He apparently felt in tolerably good health; at least, his actions did not suggest that he had had a thought of death. However, he died in his room at the hotel, from hemorrhage, and at the *post-mortem* a large aneurism was found, connected with the arch of the aorta; it had absorbed three of the dorsal vertebræ, to the extent of almost one third of their volume, and had also absorbed the wall of the œsophagus, finally bursting at this point, producing the hemorrhage which, before death, had been supposed to have proceeded from the lungs. The stomach was filled with clotted blood, but the lungs and viscera were comparatively healthy. The case illustrates the extent to which important lesions may exist without exciting suspicions of danger in the individual. In this case, the patient, instead of husbanding his forces, avoiding excitement and exertion as he would have done had he known how slight a suffrance the heart could claim, all unguarded or unwarned, meets his death among strangers.

Dr. Gibbons, Jr., read an interesting report of the case of a man who requested advice for a slight though persistent pain in the right side. Had always been healthy, and this was the first time in his life that he had found the advice of a physician necessary. He had a good pulse. A week ago he had taken a purgative for an obstinate constipation. Quiniæ sulph. was ordered and some general directions were given. An hour later the pain became very severe, and, being re-called to his bed-side, the doctor administered a sub-cutaneous injection of the sulphate of morphia. Peritonitis was feared. Patient had had no stool for some days; accordingly a large purgative (10 grs. calomel) was ordered. At next visit diagnosed peritonitis; the purgative had had no effect; pain persisted; gave opium and injected the sulphate of morphia. In the evening he was better; passed a large amount of flatus, which seemed to afford relief. Later in the evening the pain became extremely violent, and in spite of all efforts (injections, poultices, blisters of mustard and flies) made for his relief, he was only relieved by death, which occurred twenty-four hours later. The autopsy was made by Dr. G., assisted by Dr. Bird. The omentum was thick; folds of the intestines were adherent to each other; some sero-purulent fluid in the cavity. On the external surface of the ascending colon, a large gangrenous patch was found, which proved to include the *appendix vermiformis* completely sphacelated, and in it were found two gall stones. These stones, lodged and detained in the part, had evidently caused the inflammation, which had extended to the neighboring parts, finally producing the peritonitis and gangrene. It was very justly remarked, that the case illustrated the necessity of *post-mortems* after all cases in which the diagnosis had been doubtful or mysterious.

Dr. Morse said he wished to call the attention of the society to a rather novel treatment for orchitis, which he had lately used with much satisfaction to both himself and his patients. The first case had been one of Dr. Prevost's, who first attempted the method, having seen a notice of it in the *American Journal of Medical Sciences*. Since then

he had observed five other cases, all of them terminating in the most gratifying manner. The treatment is simply to grasp the testicle in the hand, making the skin over it rather tense, and to thoroughly cauterize the entire surface with the solid stick of nitrate of silver; then to apply a suspensory bandage; without any other measures the disease was generally found to have disappeared after four days.

Dr. Haine said that he has successfully employed the same treatment for carbuncles.—Adjourned.

Proceedings of the Alameda County Medical Association.

OAKLAND, February 3, 1873.

Present, Dr. Sherman, president; Drs. Babcock, Cushing, Gibbons, Kittredge, Pinkerton, Van Wyck. Honorable members—Jno. LeConte, Jos. LeConte.

The minutes of the last meeting were read and approved. The Board of Censors having reported favorably on the application of J. R. Bradway, M. D., Rush Med. College, 1847, that gentleman was unanimously elected to membership. Dr. Jno. LeConte, Chairman of Standing Committee, read the following: "*Whereas*, a published annual report will strengthen the bonds between the members of the profession and increase the sympathy between the public and profession, therefore, be it

"*Resolved*, 1st. That we deem it highly desirable and expedient to publish our first report as early as possible.

"2d. That the reports on 'Medical Statistics' of the Committees on Diseases, City Hygiene, Meteorology, Topography, Drainage and Geology, and Medical Botany, be written and presented to the association as soon as possible, in no case latter than 31st July, '73.

"3d. That all statistics commence with 1st July, '72, and close 30th June, '73.

"That the Chairmen of each of the Sub-Committees, in conjunction with the Standing Committee, be constituted a Publishing Committee, to whom all the reports must be referred after having been presented to the association.

(Signed) "JNO. LECONTE,
"GEO. E. SHERMAN,
"C. S. KITTREDGE,
"Committee."

On motion, the paper was received and adopted. The Sub-Committee on Diseases, made the following mortuary report for December:

"*Zymotic Diseases.*		
Miasmatic	2	
Constitutional.		
Diathetic	1	
Tubercular	7	
Local Diseases.		
Nervous	1	
Respiratory	5	
Digestive	2	
Integumentary	1	
Developmental Diseases.		
Children	2	
Unclassified	2	23

Ages.		
Under 5 years	10	
Between 15 and 20 years	1	
" 20 and 30 "	1	
" 30 and 40 "	2	
" 40 and 50 "	2	
" 50 and 60 "	5	
" 60 and 70 "	2	23

"On reference to the record, it appears that six of these deaths occurred in persons who had been here but a short time, viz: from seven days to four months, all of whom were ill at the time of their arrival, and it is this fact which chiefly accounts for the unusually large mortality for this month, and of those of a constitutional character.

(Signed) "T. H. PINKERTON,
"Chairman."

On motion the report was received and placed on file. The Committee on Free Dispensary reported that it had met a Committee from the City Council, submitted estimates of requirements and expenses for opening the dispensary, which estimates had been accepted by the city, and that the free Dispensary would be at once opened. The authority was given the committee to name the hours of attendance and assign the physicians for each day's work.

Dr. Pinkerton resigned the Chairmanship of the Sub-Committee on Diseases, owing to press of other work preventing his performance of the duties. Resignation accepted and Dr. Babcock elected as chairman. Dr. Bradway was ap-

pointed on Committee on Topography, vice Dr. Hanson removed from the city. Drs. Sherman and Jos. LeConte were appointed on the Committee on Botony. Dr. Gibbons addressed the society on the merits of the climate of this country for tuberculous patients, on which an animated discussion arose. Drs. Allen and Carr were appointed to prepare papers for next meeting. On motion, the association then adjourned to 3d March, '73, at 7½ P. M.

"*The Northern District Medical Society.*"

We are happy to learn that the profession in the northern part of the State is alive to the necessity for more frequent assembling in order to exchange professional views, strengthen fraternal ties and cultivate a more general social intercourse. The following card was issued early last month.—[ED.]

"MARYSVILLE, Jan. 13th, 1873.

"DR. ———

"*Dear Sir:* The following names have been appended to a call for a meeting to be held in Marysville on Thursday, January 23d, 1873, for the purpose of organizing a 'District Medical Society,' embracing the counties of Butte, Colusa, Sutter, Tehama and Yuba.

"Your attendance and co-operation is most earnestly solicited.

"BUTTE COUNTY—Thomas W. Tilden, *Nelson Watts, S. M. Sproul, *W. Fitch Cheney.

"SUTTER COUNTY—*N. S. Hamlin, *J. H. Clark, *Thomas Dobbins, *L. P. Tooley, I. G. Cannon.

"COLUSA COUNTY—*Luke Robinson, *J. M. Banks, W. H. Belton.

"TEHAMA COUNTY—Wm. P. Mathew.

"YUBA COUNTY—*R. H. McDaniel, C. C. Harrington, *S. J. S. Rogers, C. E. Stone, E. T. Wilkins, *J. P. Reilay, *A. McMahon, *C. D. Bobo, *A. B. Caldwell, J. T. Hamilton, *D. P. Durst, S. T. Brewster.

"N. P.—The meeting will organize shortly after the arrival of the train from the north. Evidence of regular professional standing will be required."

(*The names marked thus were present at the meeting.—Ed.)

From Dr. J. P. Reilay, of Marysville, we learn that at least two thirds of the above mentioned gentlemen met at the Court House on the day specified, and were called to order by Dr. Rogers. Dr. Cheney was chosen temporary Chairman, and Dr. Clark as Secretary. On motion, the following committees were appointed by the Chair:

On Credentials—Drs. Robinson, Rogers, Watts, Dobbins, Reilay.

On Constitution and By-Laws—Drs. Hamlin, Tooley, Caldwell.

The meeting then adjourned until afternoon, when the name "The Northern District Medical Society of California" was adopted, and the new society made auxiliary to the State medical organization. It was also determined that the stated meetings be held on the second Tuesday in May and December, the latter to be the "annual meeting" and the former the "semi-annual;" special meetings to be called by any seven members.

The proper committee then reported a constitution, by-laws and fee table, which were adopted by sections and ordered printed.

The new society then elected the following permanent officers:

President—R. H. McDaniel, M.D., Yuba county.

Vice-President—W. Fitch Cheney, M.D., Butte county.

Secretary and Treasurer—A. B. Caldwell, M.D., Yuba county.

Censors—E. T. Wilkins, M.D., Yuba county, L. Robinson, M.D., Colusa county, N. Watts, M.D., Butte county.

After the transaction of minor business, on motion, the Society adjourned to meet at Marysville on May 13th.

MONTHLY REPORT OF DEATHS IN THE CITY OF SAN FRAN-

By C. M. BATES, M.D., Health Officer. *No. of Deaths corresponding Month*

CAUSE OF DEATH.	Total	AGES.																SEX.	
		Under 1 year	1 to 2	2 to 5	5 to 10	10 to 15	15 to 20	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90	90 to 100	Over 100	Unknown	Male	Female
I. ZYMOTIC.																			
Measles	3		3															3	
Diphtheria	7	1	1	4		1												3	4
Croup	3	2			1													2	1
Fever, Enteric or Typhoid	2		1	1			1											1	1
Fever, Remittent	3										1							1	1
Fever, Puerperal	3						1	2											3
Erysipelas	3								1	1	1							2	1
Cerebro-spinal Meningitis	3		1			1					1							2	1
Other diseases of this class	9	2	1		2			1	1	1			1					8	1
II. CONSTITUTIONAL.																			
Cancer descending Colon	1											1							1
Cancer of Womb	2								1		1								2
Other diseases of this class	2										2							1	1
III. TUBERCULAR.																			
Phthisis Pulmonalis	46	2					1	17	12	11	3							29	17
Other diseases of this class	7	2	3			1				1								1	6
IV. LOCAL.																			
Congestion of Brain	4	1		2						1								4	
Meningitis	10	2	1	3	1	1		1	1									4	6
Apoplexy	3									1	1			1				3	
Paralysis—general	3						1			1		1						3	
Other diseases of this class	10	4	2					2			2							6	4
V. CIRCULATORY SYSTEM.																			
Pericarditis	2									1	1							2	
Hypertrophy of the Heart	4									1	3							4	
Dropsy of Heart	2				1						1							2	
Heart Disease, undefined	4								1		3							3	1
Other diseases of this class	8							1	3	2		1		1				7	1
VI. RESPIRATORY SYSTEM.																			
Laryngitis	2	1									1							2	
Congestion of the Lungs	5	1	1							1	1		1					3	
Pneumonia	17	3	1	1					6	4	1	1						13	4
Hæmoptysis	3								2	1								2	1
Other diseases of this class	6	1						1	1	2	1							4	2
VII. DIGESTIVE SYSTEM.																			
Enteritis	7	1	2			1		2		1								4	3
Peritonitis	7		1			1		1	3	1								3	4
Hepatitis	2								1	1								1	1
Liver Disease	2									2								1	1
Hæmatemesis	9	1						1	2	4		1						8	1
VIII. URINARY SYSTEM.																			
Bright's Disease	3								3									2	1
Other diseases of this class	2										2							1	1
IX. LOCOMOTORY SYSTEM.																			
Knee Joint Disease	1									1									1
Caries	1							1										1	
X. INTEGUMENTARY SYSTEM.																			
Abscess Psoas	1									1								1	
XI. DEVELOPMENTAL.—CHILDREN.																			
Premature Birth	3	3																1	2
Cyanosis	3	3																3	
Convulsions.—Infantile	10	6	3	1														7	3
XII. OLD AGE	5											1	2	2				3	2
XIII. NUTRITION.																			
Inanition	23	18	1	1					3									7	16
XIV. ACCIDENTAL	14					1	1		2	5	3						2	13	1
XV. MURDER AND MANSLAUGHTER	2							2										2	
XVI. SUICIDE	3							1	1	1								3	
XVII. NOT SPECIFIED OR ILL DEFINED	3						1		2									1	2
XVIII. UNKNOWN	24	4		1			1	4	6	4	1	3						21	3
TOTALS	301	58	22	14	5	7	7	37	52	50	30	9	4	4			2	200	101

CISCO, CALIFORNIA, FOR THE MONTH OF JANUARY, 1873.

of 1866, 242; 1867, 217; 1868, 334; 1869, 270; 1870, 309; 1871, 300; 1872, 254.

RACE.			WARD.															NATIVITIES.			
Caucasian	Mongolian	African	1st Ward	2d Ward	3d Ward	4th Ward	5th Ward	6th Ward	7th Ward	8th Ward	9th Ward	10th Ward	11th Ward	12th Ward	Public Institutions	Casualties	Suicides	F'r'gnCo'nr's	Atlantic U. S.	Pacific U. S.	Unascertained
3						1							1		1					3	
7					1	1		1				1	2		1					7	
3				1		1							1						1	2	
2												2							1	1	
2									1				1						1	1	
3			1	1									1					3			
3												1			2			3			
3				1					1		1							1		2	
8	1			1				1		1			2	1	3			3	1	5	
1								1											1		
2				1						1									2		
2													1		1			1	1		
40	5	1	4	2	1	6		3	2	3	3	3	2	3	14			29	15	2	
5		1		3		1								1	2			1	2	4	
4					1	1	1						1					1		3	
10			1	1		1			1	3			1	1	1			2		8	
3						1			1						1			3			
2		1				1						2							2	1	
10				1		2			1	1	2	1	2					3	1	6	
2												1			1			2			
4												3	1					3	1		
2			1			1												1		1	
4				1										1	2			4			
7		1		1					2			1			4			6	2		
2				1									1						1	1	
5			1							1			1	1	1			3		2	
16		1				2			2	1	1	1	1	3	6			12		5	
3					1					1		1						1	1		1
6										2	2	1			1			5		1	
7			1	2						2				2				2		5	
7			2	1						1			1	1	1			3	2	2	
2				1											1			2			
2									1						1			2			
8	1			3				1	1			1	1		2			7	1	1	
3				1											2			2	1		
2						1									1			1	1		
1										1								1			
1															1			1			
1					1														1		
3										1	1		1							3	
3						1					1				1					3	
16				3		1			1	1	1	2		1						10	
5			1	2						1			1					5			
23			4	1		1		1	2	3			5	1	5			1	2	20	
12	2															14		10	1	1	2
2																2		2			
2	1																3	3			
3			1									1			1			3			
6	18		1			11		6	1		2	1	2					19		5	
268	28	5	18	29	5	34	1	14	18	23	14	25	29	16	57	16	3	151	42	105	3

Sugar Pills.

Several years ago, a late Professor of the New York Medical College often visited old Dr. Mott, and at one of these occasions, he saw the medical pocket-case, with small bottles, of the visitor, gotten up for any medical emergencies in the night. He exclaimed:

"Oh, doctor! I hope you have not turned homœpath?"

"Not at all, Dr. Mott; these are the regular allopathic remedies."

"That is right; it would grieve me to see you fall so low; but why these homœopathic bottles?"

"In order to have a druggist's shop in a small compass, and not be obliged to send to a druggist when called out at night."

"Well, that is right; but let me see your selection." Then a critical examination of every bottle took place, and the choice approved as very judicious, till the last bottle was reached, without label, containing white pills, when Dr. Mott said:

"And what is there in this bottle?"

"I have to confess to you, Dr. Mott, that these are plain sugar pills."

"Those are the best pills you have in your whole box," was the remark of the great surgeon.—*Medical Record.*

Death from Chloral Hydrate.

It is our painful duty to announce the death of Dr. C. B. Jones, of this city, on the 15th ult., from chloral hydrate.

The doctor had been suffering for some time past from fissure of the anus, and he placed himself under the care of Dr. Campbell & Son, of Toronto, for treatment. He was put under the influence of chloroform and the operation performed. He recovered nicely from the effects of the chloroform, but as he was still suffering considerable pain, he requested Dr. Campbell to give him some chloral, which he accordingly did. He took 40 grs., and in about twenty minutes 40 grs. more, combined with ¼ of a grain of morphine, were administered; soon after he became insensible, and sank, in spite of the usual appliances, death being caused by cardiac syncope. This is the second occur-

rence of the kind which has taken place in this city, and as a curious coincidence in both cases from similar quantities of chloral. We do not wish to lay blame at any man's door, but we cannot refrain from remarking that it is exceedingly unwise to administer chloral hydrate after an operation in which chloroform or ether has been used under any circumstance.—*Canada Lancet.*

Book Reviews.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF CALIFORNIA, 1871–72.

We have received the above named publication, comprising 228 pages, neatly printed on good paper, and which, coming from the highest medical organization in the State, should be considered as embodying the results of the latest and best professional observations, and be regarded as authority. We fear that such, however, will not be the case in this instance.

The work of a Committee on Publication is not an enviable one; arduous and thankless when well done; if performed in a careless manner is too easy, and is equally thankless being badly executed. Ill-feelings are sure to be engendered if any one is slighted, while adverse criticism and censure accompany a desire to accommodate every person who may read a paper. That the Committee recognized this fact is seen from their report from which we extract:

"The Committee deemed they might be doing injustice by abridging or otherwise altering any of the reports and papers ordered for publication. These, as well as the proof sheets, having in almost every instance been corrected by the respective authors, the Committee, of course, cannot be held responsible for either the sentiment (?), diction or errors they may contain."

We don't agree with this. As if to intimate some of their grievances and to protect their successors, the Committee are generous "to advise that, hereafter, more attention be given to condensation and brevity."

We are pleased with the general appearance of the transactions, but think that we are not alone in considering the entire result of the committee's work as more generous than just. Some papers should have been pruned and others omitted, even at the risk of lessening the size of the book or giving offense.

The office of the committee is to do what it is supposed the entire assembly cannot do—be critical and discriminating, for a large body never acts with that deliberation and caution that a smaller one does. We may reasonably hope that as the Society grows in years and numbers, such a quantity of papers will be presented as will make it necessary to *select* for publication.

To refer to the contents, we have first an abstract of the minutes of the sessions, then the able address of the ex-president, a paper full of good suggestions, a little tinged with personal bias perhaps, especially on the subject of medical education, the standard for which he evidently places quite low, on the hypothesis that "a California education is the best for Californians," though we cannot see why they should not have as thoroughly competent medical attendance as our Eastern neighbors. That California professional education *may* be made as effective as that obtained anywhere else, we cordially admit, but that it *is* such, we fear only the numbers of the faculty of each embryonic school will be found to admit.

From the various committees, we have reports from that on *Surgery*, of which Dr. Nixon was chairman; on *Medical Topography*, etc., by Dr. Hatch, chairman; on *Obstetrics*, by Dr. Oatman, chairman; on *Botany*, by Dr. W. P. Gibbons, and on the cultivation of the cinchona tree, by Drs. Logan and Stout. All of these reports were prepared with great care, contain practical *information* and instructions, and are a credit to the society and profession. We are sorry to see but one paper presented by a specialist, and that was on amblyopia potatorum by Dr. Curtiss, of Sacramento, a paper of great interest, and evincing careful study of the subject. There is a sufficient number of competent specialists in our State to afford a goodly collection of papers each

year, and we hope to see them encouraged to come forth and give those in general practice, the results of their observations on the many symptoms and cases which occur to the general practitioner, and which are not clearly demonstrated in our text books. There are several papers on different subjects, which we have not the space to review, the volume closes with the reports of the Committees on the formation of a Mutual Aid Society, and on the Constitution and By-Laws, which subjects are to be brought up at the next meeting, to be held in Sacramento, commencing on the 9th of April next.

We chronicle with pleasure the advent of this second published transactions, and trust that we and our successors for many generations, may see each year, a goodly volume, containing the results of the experience of our fellow practitioners throughout the State, and published to disseminate the knowledge gained from our teachers, from our observations, experiments and application.

CONTRIBUTIONS TO MEDICAL SCIENCE FROM THE BUREAU OF MEDICINE AND SURGERY, U. S. Navy Department. VOL. 1. MEDICAL ESSAYS. Edited by Medical Inspector, A.L. GIHON, U. S. N. Published by order of the Navy Department, 1872.

This volume of 337 pages is the first one of a series to be issued from the Naval Medical Bureau, and is composed of reports of diseases, etc., from medical officers, serving in different parts of the world, and of papers addressed to the Bureau, containing the observations of the authors on subjects of medical science.

It has long been a subject for comment that the Naval Medical Corps has taken apparently no advantages of its opportunities for increasing the stock of professional knowledge by publishing observations made in every country and climate where our ships visit, and of detailing for the common instruction such cases under supervision as

present rare forms of disease, or peculiarities of treatment, but we find the enigma explained by a note from the Surgeon-General, at the commencement of this book, to the effect that the "files of this Bureau having been found to contain numerous reports of cases interesting to the profession at large, and instructive to medical officers of the navy in particular," the Bureau has resolved to no longer prevent justice being done to the authors of the papers, and to encourage the habit of reporting cases in future, that the profession at large may profit by the rare advantages offered those in the Government service. So we see that medical officers have done their duty to the Bureau, is at fault for the suppression to this time, of the accounts of their labors.

We know of none better qualified than Dr. Gihon, to undertake the work of compilation, but we fear that his abilities as a collector and arranger of statistics and papers, must at the first be checked by reason of want of material sufficient for their proper exercise. If this is to be the first of a series of publications, and is the volume for "*medical* essays," why include two *surgical* papers in the contents? If the papers collected at the Bureau are "numerous," and refer, as we suppose a large collection of papers should, to different subjects, why not collect the subjects most nearly relating to each other in separate volumes, and thus make the work of reference easier? We are forced, therefore, to conclude that while the "reports of cases" in the Bureau are "numerous" (particularly when we consider the total want of encouragement that office has hitherto given medical officers to do more than fill out the red tape blanks, showing how parsimoniously the Medical Department can be conducted), they are not sufficiently "numerous" to afford a compiler the material for proper classification, and have their published condensation the size of a book, not of a pamphlet.

To show how just is the above remark, we give the titles of the eleven papers composing the contents of the book. "Practical Suggestions in Naval Hygiene;" "Resection of head of femur for gunshot wound;" "An account of Yellow

Fever on board the 'Jamestown;'" "An account of Yellow Fever on board the 'Saratoga;'" "Sanitary Condition of the Asiatic Squadron;" "On Diabetes;" "Case of Erosion of the entire penis;" "Reports upon certain English Hospitals;" "Schedules of Examinations at Netley;" "Reports on the Hospitals, etc., of Peru;" "Experiments and Observations in Naval Hygiene."

What a medley to publish in one of a series of volumes for reference, if the collection of papers from which these are taken, is "numerous!" But to refer to the individual papers. We have first the excellent "Practical Suggestions in Naval Hygiene," by Medical Inspector Gihon, which work it was our pleasure to review on page 380 of Vol. I of the LANCET. We have nothing to add to our favorable remarks then, confident that the "suggestions" will grow in favor each year in the service.

The next paper is on "Resection of head of femur for gunshot wound," by Surgeon W. E. Taylor. The patient received his wound in an attack on a piratical vessel on west coast of Mexico, in July, 1870; the ball entered midway between left greater trochanter and joint of cocoyx, and passing inwards, forwards and upwards, lodged in the head of the femur. After 24 days the joint was resected, removing eleven pieces of bone and the ball. The man made a slow but sure recovery, each step in which is noted at length, necessary perhaps for a report to the Bureau, but too much in detail for a work like the present. (In fact, we note this tendency to profuse description in all the reports of cases published, which it would seem were better to have been omitted, leaving more room for some other of the "numerous" reports on hand.) Before the patient was lost sight of, an apparatus was adjusted by means of which he could easily walk, the shortening of limb being only 3½ inches.

In the paper on "Yellow Fever on board the 'Jamestown,'" by Surgeon Bloodgood, we have a detailed account of a malignant epidemic commencing while the ship was at Panama, on Dec. 19, 1866, and lasting until May 23, 1867, when the ship was 56 days at sea *en route* for San Francisco.

We can do no better than quote the summing up of Dr. B.:

"Forty-eight cases and twenty-one deaths are enumerated * * * * * * twenty of which and six deaths occurred at sea. In regarding this summary it is noticeable that three persons died without having had black vomit or suppression of urine; one died who was ptyalized at an early stage of the disease; six recovered after having black vomit; three survived in whom the secretion of urine was arrested; eight recovered after having been delirious; after hemorrhage from the mouth and nose five recovered; nine had black vomit stools, of whom seven died; the urine of eleven patients was tested for albumen, it was found but in two, one of whom died. * * * * * * Mercurials were not obviously beneficial. I could not discern any utility from the administration of quinine, and early discontinued its employment. * * * * * * Especially efficacious seemed the agency of the nitrate of potassa as an eliminator of the specific poison by its diuretic and diaphoretic action, and not in a single instance did it seem to incite or increase visceral irritation. The moment for commencing stimulation and the extent to which it may be carried, cannot be indicated by any general rule, and can only be judged by the particular conditions in each individual case."

Dr. B. considers the disease contagious. Hot baths and wet-cups were important remedial measures; quinine as a prophylactic was useless.

The next paper by Dr. Pilcher, on the "Yellow Fever on board the 'Saratoga'" in 1869, gives the account of 37 cases, of which 17 died. The symptoms were similar to those last described, but the treatment differed. Quinine was relied on, the skin was attacked by means of blankets wrung out of hot water, tepid sponging of the surface, and counter irritation to the epigastrum, and cold applications to the head. Dr. P. does not think the disease contagious.

The next paper is on the "Sanitary condition of the Asiatic Squadron for the two years, April, 1868—March, 1870," by Med. Inspector Maccoun. We can only briefly note a point or two, and first in interest to us who have agitated the "Social Evil" question, we read:

"I must mention that venereal diseases are less virulent and much less prevalent at this place (Hong Kong) than formerly, owing to a strict system of registration and in-

spection of all public women. The average number of sick in the English barracks has been reduced one-third by this measure. We have also reaped the benefit of it ourselves, for after a liberty of 48 hours given to one of the ships of the squadron, with a crew of nearly five hundred men, only six cases of chancroid were returned!"

During the two years of the Dr.'s service, out of a sick report of 3693 admissions, there were but 17 deaths, which shows that the sanitary measures adopted were successful to a remarkable degree.

The next paper, "On Diabetes," by Medical Director McClelland, is scarcely a paper for a "medical essay" from the Navy Department, it being the report of the treatment of a successful case of that disease in a lady, the remedy being skim-milk. The paper is quite a complete history of the disease from the time of Galen, is thoughtfully prepared and reflects great credit on the author, but we submit that the pages of a medical journal would be a more appropriate place for its publication than the work under review, in which it must have crowded out other "numerous reports;" besides, this female was not under Naval control and the report could not have been called for in the line of duty.

The next paper is a report on "Erosion of the Entire Penis," and is written by Medical Director Ruschenberger. Unfortunately, the early history of the case is very obscure, owing to the fact, that the record was badly kept. (The surgeon in charge had been for six years Assistant, and for four years Chief of the Medical Bureau, devising blank forms for others to keep and rules for others to follow, until he was unable to keep the one or follow the other, owing, we suppose, to the want of capacity of the human mind to grasp all the details of such a confused array of regulations!) The case is one of unusual interest and, unfortunately, nothing but the entire production of the report can convey a perfect idea of it.

Following are a series of papers by Medical Inspector Shippen on "Certain English Hospitals," which the doctor was ordered to inspect. The reports are quite complete

and show that in hospital construction, management and general efficiency we have but little to learn from our English cousins. Considerable space is given to the Government examinations for the medical corps of the Army and Navy, and in this respect our service is infinitely behind that of England. In a future number of the LANCET we propose to extract liberally from these papers, to show what room there is for improvement in our services, as well as in the general cause of medical education.

The next paper is a report on the "Hospitals, Charitable Institutions and Peculiar Diseases of Peru," by Medical Inspector Browne. He describes two diseases unknown elsewhere, namely, "verrugas" and "oroya fever." The papers are interesting, display careful investigation and reflect credit on Dr. Browne, who, it seems, is the first of our many Naval medical men stationed on the Peruvian coast who have thought it worth while to observe and record their observations for the benefit of others.

The book closes with a record of experiments on the present defective style of naval clothing, made by Surgeon Payne, while on board the "Jamestown." It is to be hoped that in due time the advice and warnings of medical officers will be heeded and our men properly clothed and protected.

We close this, perhaps too lengthy, notice of the book, expressing our satisfaction with the contents of the reports and general idea of the work. We regret that a better arrangement could not have been made, seeing that other similar publications are to follow, and must submit, that in compiling a work from reports, much of the details of each separate case may be omitted by the compiler and leave just as complete a description and convey an equal quantity of information. In the present instance, the inference will be drawn, that the expression, "numerous reports" on hand at the Bureau, refer to the numerous pages covered in describing them.

U of M

HARE-LIP.

Page 131.

THE

WESTERN LANCET:

A JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

FOR MARCH, 1873.

Surgery.

ART. I.—*Some Remarks on the Operation for Hare-lip, with two Cases, and Photograph.* By CHARLES B. BRIGHAM, M.D.

The congenital deformity of hare-lip frequently presents itself for surgical treatment. It has never been satisfactorily settled as to why this deformity is produced. Some surgeons believe the mother's imagination to have an influence upon it; others collect the cases where, in the same family, for generations, children have been born with this trouble, and declare it hereditary; while others accuse the abnormal adherence of the fœtus to its membranes as the cause. On the other hand, it has been clearly shown how the deformity arises. If we examine the human embryo at the fourth or fifth week we shall see that the development of the face is carried on from three centers, the middle one forming the nose, while the two lateral ones compose the palatine prominences; now it is by an arrest in the development of one or more of these centers that a greater or less deformity in the lip or bone arises. The median prominence, which contains the intermaxillary bone, may be imperfectly developed or imperfectly united with its neighbors, the lateral prominences, and so we have the various degrees

of hare-lip, from the famous case of Guersant, in which a double hare-lip extended to the lower eyelid on either side, down to those cases where a slight notch constitutes the only deformity. Hare-lip occurs more on the left than on the right side, and this was regarded by the distinguished Roux as the consequence of that law of the organism by which the forces of life are unequally divided between the two great halves of our body; so that if there should be an arrest of development, it was natural that it should fall on the side where the vital force had the least energy. A fissure in the lower lip is rarely met with, and we are led to believe that arrests of development are less common where the union is rapid and simple, as in the lower jaw, than where it is tardy and complicated, as in the upper. The fissure of the upper lip in the median line rarely occurs. In double hare-lip, the intermaxillary long portion may be complete and perfect, while the portion of the lip attached to it is rolled up into a little triangular mass; or the long portion may or may not project from under the nose, or it may be wanting altogether. So in this deformity with the fissures of the hard and soft palate, they may be more or less extensive. Besides the fissures of the palate, another complication has been observed in the lower lip: a specimen of it is to be seen at the Musée Dupuytren, at Paris. It consists of a little channel extending into the mucous membrane, nearly to the frenum, on either side of the median line, into which a probe can be passed and from which issues a clear, limpid mucus. The operation for hare-lip has been performed as early in life as the second hour, but it is a question whether the tissues are strong enough so early in infancy to warrant a successful union in the majority of cases. The second or third month is thought by most surgeons to be the preferable time for the operation. Among the numerous methods of operation for hare-lip, none seems to us so excellent as that of Malgaigne, with certain modifications. Our aim should be to make a perfectly straight upper lip, of normal height and width throughout. In some cases of hare-lip, the tissue seems thinned and destitute of mucous membrane, and the free edges of the lips

so curl up under the sides of the nose as to greatly interfere with this desired result. Now, in cutting the flaps, the incision should be made from above downwards (Malgaigne's method), the knife being held slantingly (Henry's method), so as to make a bevel, as it were, of the edge of the flesh; and then, as we are completing the incision, the flaps should be left united to the mucous membrane of the lip by a narrow isthmus. If the two lips are on the same line, these hanging flaps may merely be approximated and kept in place by a suture or two; if they are not on the same line, then one flap (its outer edge being refreshed) must be placed above the other, after Mirault's method, and kept in this position when the sutures are being placed at the end of the operation. In the former case, there will be a superabundance of tissue, which may be snipped off with a pair of fine scissors, a few weeks after solid union is obtained; this last manner of procedure is, I think, an original one. We thus can avoid the slightest notch and rectify the form of the lip. Sometimes the intermaxillary portion protrudes under the nose in cases of double hare-lip, and we are called upon to replace the incisors, as the preliminary step to the operation. This is undoubtedly best done by pressure upon the part for several hours daily; or otherwise, by cutting a triangular piece from the vomer, we may be able directly to push the projecting piece back into place.

Some surgeons advocate the use of sutures of wire, of catgut, or of silk, while others use the twisted suture of pins and silk thread. I much prefer the sutures, and I should like to bring to the notice of the profession an idea which I believe original, the use of sutures of horse hair, taking the hairs fresh from the horse's mane or tail. The advantage which they seem to possess over other sutures lies in the little irritation which is excited by their presence. I have repeatedly left a suture of this sort in a flap during three weeks, without its showing a disposition to slough out. To be sure, we have not unfrequently a similar result with wire sutures, but I think not so often as with the horse hair; the horse hairs, two or three being taken

together, should be thoroughly waxed, and then the knot is as easily tied and remains in place as well as any silk ligature.

Whether we use pins or sutures, at their withdrawal, a piece of court plaster cut in the form of a dumb-bell, and large enough to restrain either cheek, should be applied, and left in place until a solid union is assured.

The two following cases of hare-lip operation, were treated at Dieppe, in the summers of 1871–72.

CASE I.—George S. *aet.* 13. The patient had a double hare-lip complicated by a cleft palate; the fissure of the palate was an inch in width, and extended throughout its length. The intermaxillary portion with the incisors had been removed in an attempt at repairing the deformity when the child was about three years old; a scarlet fever which he then underwent, defeated the union of the lips; now the shortest distance between them is an inch and a quarter in length; the nose is flat upon the face, and the edge of the lips cannot be made to approach one another even with considerable force. A few years ago the patient was troubled with fistula and hæmorrhoids, but at present is in excellent health. On the 19th of Sept., 1871, the patient was put under the influence of chloroform, and a flap of mucous membrane was reflected from either lip with the knife turned slantingly; then in order to get a more ready approximation of the flaps, a straight cut an inch in length, was made with the scissors on either side of the nose, and parallel to the line of the mouth. This brought together the two flaps without much difficulty, and they were then united by means of a pin and three horsehair sutures; the reflected flaps were placed one above the other, the under one belonging to the side of the lip which had the least height, in this way no tissue was lost, a common hair pin was placed so as to ride the nose, its two ends being confined by a little rubber ring; thus the flatness of the nose was considerably remedied; two strips of court plaster held the cheeks immovable. The pulse after the operation was at 90; the patient passed the afternoon and evening without taking any nourishment; in the night he slept for a

few hours; it was impossible to keep the child from thrusting his tongue out from under his nose, so strangely did the new wall of flesh feel to him. On the 20th, the patient's pulse was at 120, and he was quite downhearted; he took some clear soup at noon and every hour during the afternoon; the lip remains well in place; on the 21st, the pulse was at 88, the lip was dry and without suppuration; on the 22d, the patient complained of cramps in his fingers, this trouble was of short duration; an enema was given daily; the patient spent the day out of doors the 25th; and on the 26th the pin and sutures were removed, and it was noticed that the sutures had created no perceptible irritation; on the 29th the two bands of court plaster were also removed, and on this day the above photograph was taken; the lip proved to be of excellent height, and the mucous membrane on a straight line throughout; the nose remained well in place and the face soon regained it natural expression.

CASE II. Marie C., *aet.* 3. The patient had a double hair-lip, complicated by a division of the soft palate, the intermaxillary portion of the jaw was normal, all the teeth being in their regular position; one central isolated portion of the lip attached to the subnasal fossa, was of the usual size, and curled upon its edges. On the 28th of September, 1872, the patient being under the influence of chloroform, the edges of the intermaxillary portion were refreshed; the usual flaps were reflected from the edges of the lips, and the different part of the lips approximated by means of six horse hair sutures—the line of the suture being in the form of a Y; a band of court plaster in the dumb-bell shape, confined the cheeks; little, if any, febrile disturbance followed the operation; the child was drawn in its carriage out of doors daily, and at the end of the fourth day, the lips seemed so solid, that the sutures were removed; at the end of the eighth day, the plaster was also removed. A projecting point of the lips caused by the approximation and union of the two reflected flaps was then snipped off with a scissors, and an excellent result was obtained, the lip being straight throughout its length.

ART. II.—*Reduction of a Dislocation five months after Injury. City and County Hospital. Service of Dr. Toland.*

(Reported by Mr. Cox, attendant of the Hospital Clinic.)

Hugh Donahue, *aet.* 54, boatman. Admitted by request, Febuary 7th, 1873. Patient stated that he went to bed on the 27th of last September, as he thought, quite well, and on rising in the morning, found the shoulder, as he expressed it, "out of place." On further inquiry, he says that he had been rowing a boat the evening previous, for a distance of about a mile, and it being a cold night, he exerted himself to get home as soon as possible. Patient himself says that he had not been drinking, but several reliable parties state positively that they saw him drunk. On waking in the morning, the shoulder was found very painful, swollen, and there was also an inability to bring the hand to the mouth.

A few days after he consulted a physician of Vallejo (the place where the accident occurred), who made no extended examination whatever, but simply put his hand under the patient's shirt, felt of the shoulder, and said he had inflammatory rheumatism, for which he prescribed a liniment, and some anti-rheumatic mixture, and told the patient to "come around" in a week. This treatment doing no good, at the end of the week, the patient went again, when the Doctor said it was becoming chronic, told him to take sulphur baths. It being out of the power of any of these remedies to reduce a dislocation, it is very evident that no improvement could take place. The patient becoming tired of Dr. ——, applied about two months afterwards, to other physicians of the place, who immediately detected the true cause of the trouble, and proceeded at once to take means to reduce it. Two attempts were made to reduce it, which, however, were unsuccessful. At this stage, the patient was advised to come to San Francisco and consult Dr. Toland, which he did.

Dr. Toland examined the case, concurred in the diagnosis made by those who had last attended him, and gave him a

permit to enter the hospital. At this stage of the case the dislocation was very apparent. The roundness of the shoulder had disappeared, and the head of the bone could be found under the coracoid process of the scapula. Patient was placed under the influence of chloroform, and the reduction was effected in the manner first proposed by Mr. White, of Manchester, Eng., and afterwards revived by M. Malgaigne, as follows:

The scapula is fixed by passing a wide roller bandage around and over the shoulder, and fastening both ends to the opposite lower bed post. Another is passed through the axilla and diagonally across the chest and back, and is fastened to the opposite upper bed post. A sheet is then fastened to the arm and it is raised from the side (the assistants at the same time exerting a steady traction upon it), and drawn straight up until the head of the bone is thus elevated into its socket. An assistant also makes steady downward pressure upon the shoulder. The dislocation was reduced at the first attempt. After reduction the patient's arm was bandaged across the chest with his hand to the opposite shoulder; plenty of cotton being used to prevent irritation of the parts by the bandage. Patient at the present time has almost perfect use of his arm.

ART. III.—*Treatment of Traumatic Neuralgia.* By S. WEIR MITCHELL, M. D., Physician to the Philadelphia Orthopædic Hospital and Infirmary for Disease of the Nervous System. (*Injuries of Nerves and their Consequences,* 8vo. pp. 377. London: Trübner & Co., 1872.

In the treatment of traumatic neuralgia the author says: "The pains of traumatic neuralgia are so terrible that we are usually driven at once to the use of narcotic hypodermic injections, without which it would often be impossible to relieve such cases. In neuralgia, from what we call, for want of a better term, irritation of nerves, there is reason to believe that some of the opiates, in the form of hypodermic injection, may prove more or less curative in their

action; but where, as in most traumatic neuralgia, there is manifest organic alteration of the nerve, such agents are chiefly of service because they relieve pain, and thus enable us to bridge over, so to speak, the many months of torture which are needed to bring the nerve back to health again, or to afford time for electrical or other treatment. * * * At the present time, this mode of using narcotics has grown into common use, but even yet it is scarcely estimated at its full value. In the wards for nerves and wounds in the U. S. A. Hospital it is almost the only plan of treating severe neuralgic pain; so that twice or thrice a day the resident surgeons passed around these wards with their narcotics and hypodermic syringes, seeing, as a physician observed to me, anguished and troubled faces before them, and leaving behind them comfort, and even smiles.

"During one year at least forty thousand doses of various narcotics were administered without an accident, and in certain single cases upwards of five hundred hypodermic injections were used; so that, if there were no other evidence of the innocence of this mode of medication, our own experience would have been amply competent to settle the question. I have had large opportunity in studying, in traumatic neuralgia, the comparative merits of narcotics used by the mouth or under the skin, and I have no hesitation in stating my opinion that the latter method is not only the more effective, but also the less harmful, constitutionally. For the easing of neuro-traumatic pain we tried, in turn, the whole range of medicines known as narcotics, such as conia, hyoscyamus, daturia, atropia and morphia. None of them, save the last, seemed, when singly used, to be of the slightest value; and, one by one, they were laid aside, until, in the vast mass of cases, the salts of morphia alone were employed. A careful series of examinations showed, very distinctly, the trifling influence of atropia upon this form of pain. Several cases of intense neuralgia from wounds were treated with injections of sulphate of morphia under the skin in rising doses. When we learned the amount needed to give entire ease, we used in its place next day a full dose of atropia, our largest injection having been one fifteenth of a grain. The most absolute failures attended these efforts; so that without denying to this latter drug the power ascribed to it of relieving certain neuralgia, I am sure that it is in the traumatic species simply useless. The morphia salts, on the other hand, are invaluable. For hypodermic use, I usually employ at first one fourth of a grain of the sulphate, but I have given as much as a grain and a half twice a day. When continu-

ously used, it is curious that its hynotic manifestations lessen, while its power to abolish pain continues; so that the patient who receives a half grain or more of morphia may become presently free from pain, and yet walk about with little or no desire to sleep. The ability to lessen pain is not, therefore, of necessity, connected with the sleep-compelling potency. Where, however, the latter is inconveniently felt, and we desire the former only, it is possible to attain the end in view by using with the morphia a certain share of atropia. Thus, if we inject half a grain of sulphate of morpha, and with it the thirtieth of a grain of sulphate of atropia, the anæsthetic force of the morphia will resist unaltered, but the tendency to sleep will be greatly diminished. The views here set forth were reached after long and careful experiments on large numbers of men, and seem to justify the practice of using atropia and morphia together. As regards the place of injection, I agree with most observers that it is generally of little moment, the effect being the same whether it be thrown into the affected limb or into a remote part. The single exception to this I shall presently mention."

This exception occurs in the treatment of the burning pain, or, as it is called, causalgia, for which—

"A vast number of means were tried to ease or cure, but the one essential for comfort was the use of water dressings, which were unceasingly removed, the sufferers carrying a bottle of water and a sponge, and keeping the part covered, I have never known a man afflicted with causalgia who did not learn very soon the use of this agent, and I never knew one who could be induced to exchange it for any other permanent dressing. Further relief was given by hypodermic injections of mosphia used twice a day, and injected into the tissues of the affected parts. I am well aware that this is not in accordance with recent views as to the equal efficacy of injections at points remote from the seat of the pain, but I am well satisfied that in causalgia something is gained by the local proximity. Numerous experiments were made to determine whether as full relief might not follow injections at distant points, but although the injecting of the burning hand produced in may cases torture, the patient was sure to insist upon it after a few trials of other localities."—*Half-Yearly Abstract, Med. Sciences*, '73.

ART. IV.—*Laminaria in the Treatment of Urethral Strictures.* By ROBERT NEWMAN, M. D.

The following are some of the conclusions arrived at by Dr. Newman:

1. The bougies must be made from an unblemished piece of the plant, taken out of the middle, made with care and equal in its whole length and size. If there is the slightest suspicion of uneveness, it should not be used.

2. That part of the bougie which will occupy the portion of the urethra below the last stricture, and particularly *that* part of the bougie which enters the bladder, must be varnished previously. Mastic-varnish can be used. If the varnish is applied just before using, the laminaria may dilate a little; but, if several coats are applied and allowed to dry, no expansion can take place.

3. As any oily substance hinders the expansion, no oil must be used. The bougie before introduction must be placed in cold water, until it gets a soft, velvet-like touch.

4. The bladder must be emptied before the operation, to avoid uneasiness and over-distension.

5. The urethra ought to be injected with water, to relax the parts and favor the moisture for rapid dilatation.

6. The measure of the urethra and seat of strictures must be carefully taken, notes made, and the bougie prepared accordingly.

7. The bougie, when ready, must be introduced at once, straight without hesitation, twisting, or resisting in its passage; otherwise it will cause pain, or, as dilatation goes on immediately, it will not reach the desired depth.

8. After insertion, the bougie must be left alone, and not meddled with or tried to move.

9. It must be left inside undisturbed for from two to four hours, according to circumstances, consulting the feelings of the patient.

10. The patient during this time is left in a recumbent position, and attended or observed by the surgeon.

11. In removing the bougie, the surgeon takes hold of the bougie, and uses, firmly and gradually, tractions in the same direction.

If some surgeons have failed in laminaria, they either have not observed these precautions, or they have had imperfect bougies, or selected impracticable cases.

This treatment is most indicated when the stricture is very small, almost impermeable, and no time can be lost, as the No. 1 bougie of laminaria can be introduced easier than

the usual sounds of catheters. In a few hours the patient is relieved, and can micturate without difficulty. No bad result can follow, nor will it interfere with his attention to business. This latter advantage is a great consideration, as the treatment with divulsors, or dilators, almost always causes pain, suffering, and detention in bed and from business. As soon as the stricture is dilated so far that a steel sound of a large calibre can be introduced, the laminaria has done its duty, and it is better to abandon its further use; and continue with other means. These are either steel sounds or galvanism.—*New York Med. Record*, July 1.

ART. V.—*On Acupressure, Acutorsion and Torsion, especially in Amputation.* By Professor BILLROTH. (*Wiener Medicinische Wochenschrift*, xxi, 43; *Schmidt's Jahrbucher*, No. 4, 1872.)

Professor Billroth has applied these methods in the occlusion of about 200 arteries, and in fifteen instances to the femoral, in some of which the thigh was amputated high up. There was no opportunity of applying any of the methods in amputation at the hip-joint, and Professor Billroth does not think that any one is suitable in amputation at the shoulder. Acutorsion was more frequently practised than acupressure. In one instance only was the removal of the needle followed by hemorrhage, the cause of which was faulty introduction of the needle; the artery, which was the brachial, was compressed by the proceeding of acupressure alone. Practically, acutrosion is the preferable proceeding; it is safe, and in amputation easily applicable, but cannot be substituted for the ligature in every case. With regard to the material of the needle, Professor Billroth has concluded in favor of gold, which, for short needles of moderate strength, is to be preferred to any other material.

Simple torsion has been tried by Professor Billroth in excisions of the breast, but seldom with any good results. The cause of these failures is the absence in excision of the mamma of conditions favorable to this method; in torsion, the end of the vessel should be well isolated, and the stump of the artery be seized by firmly compressing for-

ceps, and, finally, the end of the artery must be at some distance from the origin of the nearest branch. Professor Billroth has frequently practised torsion with very good results in amputation at the leg, foot, arm and forearm, and applied it to the majority of the arteries in amputation of the thigh. In one case only did he find subsequent hemorrhage; this was from the posterior tibial artery.

Much traction and twisting of the artery produce a long thrombus, but are attended with this disadvantage, that most of the twisted portion of vessel becomes necrosed.

Extended thrombus formation and the danger of necrosis forbid the practice of torsion in venous hemorrhage, which may be readily controlled by ligature or acupressure. In amputations below the knee and elbow, torsion is a very reasonable proceeding, so long as no branch springs immediately above the divided end of the artery.—*Half-Yearly Abstract, Med. Sciences*, '73.

ART. VI.—*Inflammation of the Penis.* (By M. DEMARQUAY, *Le Mouvement Mèdical*, August 31, 1872.)

Suppuration of the corpora cavernosa is of very rare occurrence; hence the following case, communicated by M. Demarquay to the Chirurgical Society, is of practical and scientific interest. X., *aet.* 38, was admitted into the Maison de Saute on the 17th of April, 1872. He was a man with a constitution impaired by four attacks of acute blennorrhagia, the last one having occurred seven years previously. Several weeks before his admission the patient was taken with retention of urine and tenesmus, and at the same time a small tumor formed in the perineum, in front of the anus. It suppurated, and was incised; but subsequently a swelling occurred behind the bulb. M. Demarquay diagnosticated an abscess originating in the glands of Cowper. The parts involved were freely incised, but complete cicatrization did not take place, and urine occasionally escaped from the wound. On the 1st of June the skin of the inferior surface of the penis became red, tender, and painful, and on the 5th the organ had increased to an enormous size, and looked as if it was in a state of erection. The sensation imparted to the touch was that of hardness rather than of puffiness; pressure caused a moderate amount of pain.

M. Demarquay made the diagnosis of inflammation of the penis.

General symptoms of a very grave character occurred two days subsequently, and the patient died on the 10th of June. The following is the result of the autopsy.

Corpora cavernosa.—On the left side the changes are most manifest in the middle part, which is the seat of a collection of pus.

On the right side the lesions are pretty much the same, but the amount of pus is not so great.

Urethra.—The mucous membrane is injected; in the submucous tissue, near the bulb, there is a collection of pus; the postero-lateral parts of the canal, about four centimetres behind the glans, are dissected up by an abscess; the bulb is infiltrated with pus in the same manner as the corpora cavernosa.—*Med. Times.*

Institutes and Practice of Medicine.

ART. VII.—*Transfusion of Blood.* By Dr. H. LEISRINK of Hamburg. [*Volkman's Clinical Lectures—translated from the German by Dr. Henry Kirchner, St. Louis, Mo.*]

"Blood is a very peculiar juice."

There are few operations that deserve to be called life-preserving in such an eminent degree as transfusion, and among these few there is hardly one, that is technically so simple and so devoid of danger in its execution. Struck down by a sudden enormous loss of blood, a person lies breathing with difficulty, a face pale as wax, pulse hardly perceptible, amidst his relatives, who are frightened, expecting his end from second to second. Finally the long-looked-for physician comes and declares that an operation might save him. Every one is willing to give his blood for the purpose. A short operation follows and new life runs through the veins of one supposed lost. The face reddens afresh, the pulse rises, the central organ receives fresh blood, as by a spell the scene is altered—the person's life is saved? How technically simple is the operation, how

insignificant the instruments! In case of need any syringe answers and a bistoury and forceps is all that is requisite. Indeed if any operation, this one deserves to become the common property of all physicians, for any one might be called upon at any moment to perform it. To hesitate is out of the question, every moment bears danger, a precious human life hangs upon the point of the knife of the physician, he lifts the dying from the verge of the grave and brings him back to blooming pulsating life.

How seldom has a physician the opportunity to say: "I saved a human life!" After making this operation, when necessary, the consciousness of being the saver of a human life will proudly make your bosom heave.

The operation had many adversities before it could occupy its present position, secure for all times, in surgery. We will not discuss the question, whether in the seventh book of the Transformations of Ovid, transfusion is spoken of, or whether the operation was performed on Pope Innocent VIII, suffice to say that in 1666, Lower first made transfusion on the dog. Denis in Paris made it on the human being, in 1667, with success. After him, in the same year, Lower and King made it in England several times with success. Fantastic, nonsensical ideas connecting themselves with transfusion of blood from one being to another. In all earnestness the idea was gotton up that now a remedy was found to renovate the human species. In all these cases the blood of animals was used, mostly of the calf, and from this fact got the opponents of the operation or rather of the operator their weapon. The lowering of mankind was spoken of, the honor of the invention was accorded to the devil, and so the opponents of the operation succeeded to bring it into bad repute, especially as some mishaps discouraged the friends of the operation, and so it was excommunicated with the help of worldly and spiritual authorities.*

This operation, upon whose birth people entertained such high hopes, of which they had expected everlasting life upon earth—when their unreasonable demands were not fulfilled, was cast into the darkness of oblivion, it was hardly known any more by name even to physiologists. But when a new era dawned upon physiology and a more finished technicality spread over our science, then the poor Cinderella was recalled to begin a new life at the hand of physiology and especially of the physiological experiment, to rise from step to step, to occupy a brilliant position in

* *Von Belina Swioutkowski, die transfusion des blutes*, 1869, p. 9.

surgery, which, it may be said without wanting to be prophetic, will be more stable from year to year, never to be shaken permanently hereafter.

James Bleandell it was who first, in 1824, executed the operation with success upon the human subject, with human blood, and then made in quick succession three more successful transfusions.

In France and Germany the most illustrious names were connected with the regeneration of transfusion. Dumas and Prevost as well as Dieffenbach, and especially Panum, were very active. For the most important paper we are indebted to the last named author,* who showed scientifically that for transfusion on man, only human blood, and that defibrinated, should be used. Especially this last demand was in some measure an answer to Martin's paper (on transfusion in hemorrhage of patrurients, Berlin, 1859), who only wanted to transfuse undefibrinated blood.

Kühne† gave a considerable extension to transfusion in his paper on poisoning by oxyde of carbon. Several practical physicians wrote on transfusion independent of Martin. Neudorfer employed it in chronic anæmia consequent upon purulent discharges; Nussbaum in chlorosis, etc. Of the most importance are the labors of Hüter, who first introduced arterial transfusion.‡ Of the method itself one may think as he pleases, but it cannot be denied, that the writings of this surgeon awakened a lively interest broadcast amongst physicians. In this consists its great merit. I myself am not enthusiastic upon arterial transfusion, but one must have read the paper of Hüter to know that there is nothing more full of genius existing in this branch.

So far a short sketch of the history of the operation, we have no room for more.

In looking at the practically important relations we have three questions to answer:

I. What are the indications to-day for transfusion?

II. Do we take defibrinated or undefibrinated blood?

III. How do we execute the operation in the best and simplest manner?

As regards the first—indication for transfusion—we can formulate it thus: Transfusion is indicated in all those pathological conditions, where all the blood in quantity and quality is so altered, that it is unfit to fulfil its physiological duties.

A very wide range indeed, yet we hope to show it a per-

*Virchow's Archiv. XXXVII, 1863.
†Central Blatt, 1864, No. 9.
‡v. Langenbeck Archiv. Bd XII, Central Blatt, 1869, No. 25.

fectly justifiable one, for we have to accept anæmia acute and chronic, as also blood poisoning in its most varied forms, or the alterations of it when the corpuscular elements are diminished or increased in quantity (obstinate cases of chlorosis and leukæmia).

In the first instance anæmia ought to interest us, the alteration of the blood in quantity, and we have to distinguish here that anæmia occurring acute, by more or less considerable losses of blood, and the chronic produced by a long continued loss of material as in typhus, profuse purulent discharges, etc.

If we look at acute anæmia, we here have the most brilliant aspect of the operation and of that indication, that is the first, and was up to a recent date the only one.

Here transfusion will attain most, as in otherwise healthy people, the quantity of blood being only too little and a restitution of the necessary quantity will mostly be a *restitutio in integrum*. Above all we have to do here with hemorrhages of parturient or lying-in women, further with anæmia after operations or injuries. Excepted are the losses of blood in consumption, intestinal hemorrhages in dysentery and similar diseases, here an increase of blood pressure would not be desirable.

Take a peculiar position in a practical point of view, the cases of loss of blood in lying-in or parturient women. It may have occurred to every practicing physician that in a precipitate birth, in abortion, in placenta prævia, relatively large quantities of blood are lost, for a time threatening symptoms ensue and yet pretty soon a complete recovery follows.

I believe that we do not go wrong to lay great weight upon the ability of the uterus to contract in the recently delivered or aborting woman. If the uterus is not able to contract, and the blood flows continually from its open vessels, do not hesitate a moment to make transfusion. For the injection of blood is the best stimulus for the relaxed uterus. Marked cases that bear on this subject can be found in the paper of Martin; so is No. 6 of the dissertation of Evers' Rostock, 1870, very convincing. But when the bleeding of the uterus ceases, when it contracts with energy, then the transfusion may be given up for the moment, when no otherwise pressing indications demand it. It may perhaps become necessary secondarily, and just that possibility of delay is often not to be underrated in its moral effect. A few weeks ago I saw a case, in which through precipitate birth, a woman lost a comparatively large quantity of blood. The question here was, whether to transfuse or not; every-

thing was ready to make the operation. For a time the pulse was hardly perceptible; she breathed with difficulty; her face was as pale as death, but after two hours the scene was entirely altered; pulse full and good, and her appearance considerably better. Full recovery followed in a relatively short time. But if the next day the pulse sinks again, and if, in weakly women, a continued illness is feared, then the operation may safely be made secondarily. In all cases where there exists any doubt, it is proper to make the primary transfusion; it is, when made with proper caution, absolutely void of danger and easily executed. We have to look differently upon large losses of blood in injuries. How slowly do patients recover in the usual way; often we see them suffer for years from the consequences; here is no time for hesitation, and we make the transfusion at once. The same holds good in hemorrhages during operations. In clinics we see transfusion performed as an every day occurrence.

Esmarch told me that he made transfusion on a person during the extirpation of a fibro-cavernous tumor from the base of the skull, where much blood was lost, by pumping back new blood into the arm. Also in a case of exarticulation of the femur, Esmarch caught up the flowing blood, and drove it back directly into the femoral vein.* So transfusion became an efficient help at other operations, and will become the more so after a time. A contribution to the utilizing of transformation I have given in the *Berlin Clinical Weekly*, No. 7, and in *Langenbeck Archiv.* vol. XIII; while, for acute anæmia, nothing more need be said. We meet for the chronic form, with opposition from different sides. Many who would not hesitate to make the operation in acute hemorrhage, bethink themselves a long time, whether to give the same benefit to a convalescent from typhoid fever who cannot get well. And are not the relations in some measure the same?

I of course do not speak of patients who suffer from a disease that always diminishes the blood quantity anew. Even the most sanguine will not attempt to make a transfusion in carcinoma uteri or ventriculi. But there are cases where, from continued febrile disease, the vital powers are at so low an ebb that no convalescence can take place, or where the latter lasts so long that a small inter-current ailment is capable to extinguish the faintly-burning light of

*This procedure was first recommended by Volkman. See R. Volkman, on three cases of exarticulation of the hip joint. German clinic, 1868, Nos. 42 and 43.

life. I admit that the several cases recently published in the dissertation of Evers, and later by Fügensen, are only partially encouraging, and yet, among them are such brilliant improvements and cures, that it is certainly remunerating to proceed in the same path. In this category belongs chronic catarrh of the stomach. In many of these cases exists a detrimental circulation. Because the quantity of blood is diminished, and at the same time impoverished, the secretion of digestive juices is badly performed, and because the materials for digestion are not secreted in sufficient as well as in good quality, of course good chyme is not sufficiently added to the blood. Transfusion takes a link out of the chain that encircles the patient, the blood is made capable of secreting good pepsin—hydrochloric acid, digestion will be improved, and the patient begins to recover. We only have to modify the operation in these cases. Often we will have to make a derivatory venesection, and at the same time not inject a large amount of healthy blood at once, but we make frequent transfusions in small quantities. The heart, by degrees used to the poor quality and insufficient quantity, would be, as it were, surprised by a large mass of it, and by the poor quality it becomes, of course, poorly nourished, like all the other organs. If we now impose too much work upon it suddenly, by injecting a larger quantity, we might have bad consequences. We do not wonder when a badly nourished biceps muscle cannot at once perform the labor of a Hercules. Therefore, in chronic anæmia, frequent smaller transfusions.

As concerns the alteration of blood in quality, as indication for transfusion, the hospital physician has to contend above all with taxæmia from wounds, with pyæmia and septicæmia. It is not the smallest merit due to Hüter to have renewed the battle against these scourges of hospitals, and especially to have brought transfusion into action. The success is as yet not brilliant, but a temporary improvement is often enough obtained. One thing has to be understood—we shall only successfully overcome the septic and pyæmic alterations of the blood by transfusion, when we succeed in stopping the source of the poison. When from a wound the development of animal and vegetable organism is constantly renewed, if we leave a person suffering from pyæmia, to the poisons created by the same, we cannot save him by transfusion, if we would throw the blood by the bucket full into his veins. I always fear when I see such pains taken against the well-pronounced traumatic diseases, that the primary cause is lost sight of. In other words, the most effective warfare against this plague,

consists in the most perfect hospital hygiene. So then, in the first instance, prevention of wound diseases; but if they yet appear in spite of all, then the inexorable foe must be fought upon his own ground, the blood, always presuming that a fresh poisoning of the already impoverished blood must be prevented. Here transfusion must be repeated, for we must replace, if possible, the old by entirely new and healthy blood.

Another qualitative alteration of the blood, that indicates transfusion is the poisoning of it by gaseous poisons, oxyde of carbon (charcoal gas), sulphurated hydrogen (coal gas). It is a known fact that it acts as a poison by entering into a closer chemical combination with the red blood corpuscles than oxygen. By it blood is robbed of its most important quality. By transfusion you attack the evil by its roots, in bringing new blood corpuscles into the circulation. In these cases we draw by venesection from the poisoned blood as much as possible and substitute for it an equal quantity of new, healthy blood. A second injection is needed when the first one proves insufficient. Of 3 cases of poisoning with oxyde of carbon that Evers reported, 2 were saved.

Transfusion further will have to be employed in the more rare cases of poisoning by opium, atropia and chloroform. It mostly depends upon feeding the central organs with new, not poisoned blood.

The composition of the blood in its corpuscular elements may be altered, and this alteration may create a cause for transfusion. To this belong the obstinate cases of chlorosis and leukæmia. Nussbaum saw good success in chlorosis; Mosler in leukæmia although only partial in this latter disease, yet the experiments ought to be followed up, when other remedies fail.

II. Do we have to take defibrinated or undefibrinated blood for transfusion?

This question has thrown up much dust ten years ago, especially after the appearance of the oft-mentioned paper of Martin, and caused many a battle, *pro* and *con*. Now it is settled, we believe, for good, and that in favor of defibrinated blood. Yet we will be impartial and weigh the advantages and disadvantages. Martin advances as an advantage of his method (l. c., p. 87) that by defibrinating, a good deal of costly time might be lost, and that by using undefibrinated blood no disadvantage would arise. As to the first objection, we can hardly see the truth of it, for if the patient is gone so far that a few minutes will doom him to death, then we will be too late even with undefibrinated

blood. The defibrination is so simple a manipulation, and one so quickly executed, that it certainly should be employed in opposition to the undeniable dangers of undefibrinated blood. And what are the dangers? Those of embolism and thrombosis. And if there never had occurred a case in whom embolism had hastened the end of the patient (the unfavorable cases being seldom published) the writings of physiologists such as Prevost, Bischoff and Panum, ought to deter us from using undefibrinated blood. Do we not wish to learn from science? Panum says in his eminent work, p. 249: "We never can be sure with undefibrinated blood, that we do not inject it partially clotted, if even this be in smaller quantities. The larger the quantity of undefibrinated blood to be transfused, the greater are the difficulties of execution and the greater are the dangers. The stirring of the blood has a special advantage, it makes the venous blood arterial, the blood corpuscles take up oxogen from the air and makes it so much the more fit for transfusion. All experiments to counteract coagulation, as supported by Neudörfer, such as addition of alkalies, etc., are to-day looked on as child's play."

In what manner is blood best defibrinated? I have taken in five transfusions made by me, a clean wooden stick for stirring the blood. After beating or stirring it for some minutes, I strained it through fine linen and then beat it anew. When I found no fibrin deposited on the stick I strained the second time, and now the blood was ready for injection. During the stirring, the vessel containing the blood is kept in another vessel with warm water of 38° C. temperature (100° F.). It is not necessary to be over anxious about one or two degrees, even if the blood cools down somewhat, it does not matter. This is in so far of importance to know, as in a country practice a thermometer is not always at hand to test the precise temperature.

So this question is answered; we take defibrinated blood for transfusion. Now the third question.

III. How is the operation in the best and most simple manner performed?

Of course the answer to this question must decide the fate of the operation, that is, the possibility of performing it easily, for if we have to do with a difficult and complicated operation, it will never become the common property of all, and will only have a free sway in hospitals and clinics. Thank the Lord this is not so. This eminently life-preserving operation is at the same time the most simple and very easily executed.

First of all, what instruments do we need for the operation?

In case of need any syringe would answer, and a knife would do the rest. In case of need, said I; but the matter may be facilitated by instruments made especially for the purpose; we must only select the most simple.

Up to the appearance of Belina's paper inclusive, each writer on the subject held it to be his duty to invent a new instrument. Yet very few of them satisfy the demands of the surgeon.

What do we expect of a syringe for transfusion?

With the utmost simplicity it has to guard against access of air into the vessel. To satisfy this last, there were invented perfect monsters of syringes. One only needs to look at the paper of Belina to become frightened in this respect. The two most practical ones are those of Eulenberg and Uterhart, and perhaps the better of the two, the one of Uterhart.

Now for transfusion itself. In all cases in which the blood is altered in *quality* and not in quantity, then it is to be made a derivatory venesection at the time of transfusion, and the amount of blood drawn is to be a little larger than the quantity you wish to inject. But how much is to be injected? All quantities have been taken between ½ oz. to 12 oz. To establish a normal quantity for injection as Hüter desires, say 7 to 8 oz., is not objectionable. I believe that the indication has to decide this question also. In acute anæmia and in alterations of the blood in quality, as in poisoning, it will be an important point to inject as much as possible of healthy blood in order to dilute the poisoned blood. Here, of course, is not to be injected less than 250 grms. (about 7 oz.). In cases of chronic anæmia we have to make small infusions, say of 100 to 150 grms. (from 3 to 4 oz.), and repeat the same as often as may be necessary. I would here call attention to the fact that no one should hesitate to repeat the transfusion several times. You must not fold your hands after the first effort to save life, and leave the rest to God.

We should take examples from Hüter in our perseverance. Suppose we are called upon to make transfusion. A healthy, robust man, who is willing to lend his blood for the purpose, is at hand. We draw blood from a vein of his arm, and catch it in a clean vessel and defibrinate it in the above stated manner. Is it ready, you must keep it warm while you turn to the patient; you look for a favorably situated vein, say the median basilic or cephalic, which is laid bare by an incision. With a few more cuts you prepare it free in its circumference; the distal end is now ligated, so as to keep the field of operation free from blood. A little

above you place a second ligature, but without tightening it. You now fill a Uterhart's syringe and also its canula, and carry the latter through the incision into the vein. To the canula you attach the syringe and drive with a slow rotary movement of the piston, the blood into the vein. Some person you will find to whom you can entrust the pulse of the other side and who counts its beats aloud. In doing this we are secure against accidents, and you can see the breathing of the *not chloroformed* patient during the injection yourself. A slight deviation of the pulse always occurs; it either becomes more full, or it becomes for a moment smaller. This need not disturb the operator, so a slight cough, or disquietude of the patient. Strong oppression of the chest, irregularity of the pulse demand caution, but syncope demands discontinuance of the operation. You will certainly guard against some of these eventualities by quietly talking to the patient, for the moral impression of the operation is a great one. Accidents demanding a discontinuation of the operation are very rare; I only would not leave them unmentioned.

In the picture drawn I assumed that the surgeon operates by himself. If experienced assistants are at hand, of course this simplifies the whole procedure, so that while one prepares the vein, the other prepares the blood. This will shorten the time to one half.

When the injection is completed, you take out the canula, tie the vein above, and cut it through between the two ligatures, and sew up the wound; one turn of roller bandage completes the whole simple manipulation.

A few practical hints may find a place here. It sometimes occurs that the canula stands against the walls of the vessel, and no blood is propelled into it. It suffices to draw the canula back a little, and to place it more into the longitudinal axis of the vein to overcome the impediment. A little pull at the united ligature often suffices to facilitate the injection. But it may be said this is always venous transfusion; is not the arterial transfusion better? According to my views, the arterial transfusion is not at all suited to replace the venous, for manifold reasons. Venous transfusion is a more simple operation, and answers the same purpose as the arterial.

Is this view a correct one, which I hope to show, then arterial transfusion never will gain ground. Transfusion unfolds its most brilliant side in the hands of the practical physician. The practical physician, who perhaps operates without sufficient assistance, will not hesitate to open a vein, but he will probably be very careful how he cuts the

brachial or radial artery in its upper part. Who guarantees that hemorrhage will not occur, when a physician, after an operation, has to leave his patient, and after the lapse of several hours, may have to go some miles into the country, when he has no experienced nurses; not to speak of the difficulty of the operation itself. Some weeks ago, an experienced surgeon in Hamburg tried arterial transfusion. The resistance was so great that the blood could not be forced in sufficient quantity, and he had to make a venous transfusion after all. These are unpleasant things that one would rather shun in private practice, even when the hospital surgeon cares very little about them. Similar obstacles Hüter describes himself. The access of air, whose danger, of course, in arterial transfusion is avoided, we do not fear when we operate with care and a good syringe, and phlebitis and its consequences are rare in private practice. Hence arterial transfusion will find no favor in private practice, if even it is practiced here and there in hospitals. A fundamental principle in surgery is, that of two methods leading to the same end, you must choose the one least complicated; and the most simple is venous transfusion. Hüter himself does not emphasize his method; he says at the close of his paper: "Whether venous or arterial transfusion, remains with me a secondary question; but transfusion is a weapon against diseases, against which we have heretofore fought in vain. This is the problem which we must try to solve. Success full of blessing will not be wanting."

And to work at the solution of this problem is the aim of these lines. May they be favorably received.—*St. Louis Med. & Surg. Journal.*

Gynecology and Diseases of Children.

ART. VIII.—*Case of Puerperal Cerebral Embolism.* By T. GAILLARD THOMAS, M.D., New York.

Mrs. X., a nullipara, aged twenty-eight, a blonde, who had lived a life of ease and luxury, called upon me in 1870 on account of sterility which had existed during the seven years of her married life. Upon investigation, I found a very narrow cervix as the only apparent cause of this condition, and advised the systematic use of sponge-tents. As her next menstrual period was near at hand, one tent was

employed before its advent, and the patient requested to see me in twenty days after its completion. She came to me at the appointed time, and, to my surprise, I found that nausea had existed for a week, and that touch demonstrated those changes which lead to a suspicion of early pregnancy. Doubtful as to the existence of pregnancy, I refrained from the further use of tents, and waited for the next menstrual epoch to solve the question. From this time she steadily progressed in her pregnancy, which had followed the dilatation induced by one tent. So immediately did it occur that the patient to this day holds to the conviction that she was pregnant when I used the tent, and that her only astonishment is that it did not produce abortion.

Before going further, I would state that such an immediate result from this mode of treating sterility is one entirely unique in the large experience which I have had in their use.

The lady then left New York for a suburban place, and I placed her in charge of one of my friends who was resident there. I did not again see her until she was advanced to the beginning of the sixth month of utero-gestation. At that time she came to me suffering from general anasarca, with the usually attendant symptoms of cephalalgia, scanty urine, and dyspnœa. The last symptom was especially marked. Upon examining the urine chemically it was found loaded with albumen; the fluid contained in a test-tube becoming more than half of it solid upon the use of heat and nitric acid.

For this condition, the patient was put upon the usual treatment, in the hope that it might be possible to prolong her pregnancy to the seventh month, when her child would be viable. This hope proved delusive, for all movement soon ceased on the part of the child, and the patient became so dangerously ill, from the effects of uræmia, that, at the sixth and a half month, I was forced to induce premature delivery. A putrid child was delivered, and, although the patient recuperated slowly, she was in two months able to go to Florida for the winter months. There albumen and tube casts soon disappeared from the urine, and she returned to New York well.

In the month of July last she called upon me, and told me that she was again pregnant; her last menstrual period having appeared in the early part of May. Anticipating a return of puerperal nephritis, with resulting uræmia, I now watched closely, and examined the urine every fortnight. She progressed favorably until the beginning of December, when albumen and tube casts appeared in the urine, and anasarca began again to show itself. She had now advanced

to six and a half months, and my hope was to alleviate her symptoms, and cautiously prolong her pregnancy from seven and a half to eight months. For this purpose, she was directed to take a warm bath every night at bedtime, to drink a cup of warm tea after it, to sleep in flannel, and to avoid all exposure to damp and cold air. In addition, she took sufficient cathartic medicine to procure three watery alvine evacuations daily, and covered the entire body, except the head and hands, with merino.

Under this treatment the patient did well until five days before the termination of the eighth month, which I calculated would be accomplished on the 20th of January. On the 10th of that month, she was reported to me as having suddenly become anasarcous, as she had done in her previous pregnancy, and as suffering greatly from headache, blurring of vision, great nervousness, and depression of spirits. I at once obtained some of the urine, and, upon application of heat and acid, found it loaded with albumen, as I have described it to have been in her previous pregnancy. The child's movements had evidently become feeble during the past week.

Drs. Metcalfe and Walker now saw her with me, and it was deemed expedient, for the immediate safety of the child and the prospective safety of the mother, to induce premature delivery at once. This I did by the ordinary means, and, after a perfectly natural labor, Dr. Walker delivered her of a healthy male child. The child is now twelve days old, and is a thriving, vigorous little fellow, about whom we cease to feel anxiety. The mother did perfectly well for four days, but then developed the symptoms which I am about to describe.

At twelve o'clock on the fourth night after her delivery, the patient called her nurse in a very feeble voice, and said to her: "I feel very queer, and am sure that I shall faint." The nurse at once removed the pillow from under her head, and gave her some brandy-and-water to drink. In a few minutes she asked the patient how she felt, when she replied, in a mumbling, half-articulate voice, that she could scarcely lift the right arm, and that a stiff and tingling sensation extended over the right side of the face, the upper portion of the body, and down the arm. I saw her soon after this, and found her complaining as I have said, and speaking so indistinctly as to be with difficulty comprehended. She could move the right arm, but did so like one semi-paralyzed. The muscles of the right side of the face were equally feeble, and, when requested to whistle or blow out a lighted candle, air escaped from the right angle

of the mouth. The leg appeared unaffected. The pulse was beating at 125 to the minute, and the temperature was 101° Fahrenheit. The extreme weakness of the pulse and the paleness of the patient alarmed me. She was likewise somnolent, and slept with the right eyelid only partially closed. The heart-beat was feeble and "quick," but no abnormal sound could be detected in it. I decided that the symptoms were due to cerebral embolism, but Dr. Walker regarded them, from the first day, as resulting from the occurrence of a convulsion during the night, when the nurse slept. I disagreed with this diagnosis because the nurse's description of the attack, and the development of imperfect articulation, contradicted it; because it had occurred after a great diminution had taken place in the existing uræmia; and because the tongue showed no signs of having been bitten. The week which succeeded this primary attack convinced Drs. Walker and Metcalfe that embolism was the source of the symptoms.

On the next day the patient's condition became very alarming, from the extreme exhaustion which marked it. The pulse became exceedingly feeble, and beat at 147 to the minute, the temperature rose to 103½°, and the patient looked pallid and was somnolent. She now took stimulants freely, and as stimulants to the heart and nervous system strychnia and digitalis were given. This condition lasted without marked amelioration for four days, when a very gradual improvement took place. Twenty days have now elapsed since the attack. The patient still suffers from loss of muscular power on the right side except the leg, but the pulse is uniformly under 100, of better quality, and the temperature ranges from 99° to 100½°. Yesterday, she was propped up in bed for ten minutes without any sense of faintness—now, begins to eat solid food.

Supposing the diagnosis to be correct in this case (I think it is), an interesting question which suggests itself is, Where did the embolus come from which plugged a cerebral vessel? If it had entered a uterine sinus, it would have been emptied into the right auricle, would have passed into the right auricle, and thence have been sent to the lungs in some of the vessels, in which it would have probably remained as an obstruction.* It must have passed from the left heart, upon the walls or valves of which it probably had existed as a concretion, and thence was driven upward to the brain.—*New York Med. Journal.*

*The possibility of an embolus passing through the capillary net-work of the lungs, growing larger by accretion, and subsequently entering the left heart, and passing to the brain, is admitted by Rindfleisch and other German pathologists.

ART. IX.—*Treatment of Dysmenorrhœa.* By CHAS. R. DRYSDALE, M. D., M. R. C. P.

Painful menstruation is supposed to arise from three main causes—neuralgia, congestion, and mechanical stoppage to the outflow of the blood. In neuralgic dysmenorrhœa, hot baths of half an hour are very useful, conjoined with rest in a warm bed or sofa; and etherial draughts (such as twenty drops of spiritus ætheris compositus, with twenty of spirits of chloroform in an ounce of camphor julep), or sal volatile may be used; or sumbul, in doses of three grains, or hyoscyamus in doses of five grains of the extract. Indian hemp, or the inhalation of chloroform or ether, are rather heroic remedies. Morphia may be taken in half-grain doses, either by the stomach, or better still, as a suppository. M. Bernutz, of Paris, praises the extract of hemlock in dysmenorrhœa. The root freshly powdered may be given in doses of four grains, or the succus conii may be used. Bromide of potassium has been much praised by Raciborski in doses of from five to ten grains. Lupulin is often used in doses of four grains. In cases of congestive dysmenorrhœa the application of leeches to the cervix uteri is often useful. Four or five leeches, put up to the cervix uteri by means of a glass speculum, are all that are requisite; or the uterus may be scarified with a long knife, just as is done in ophthalmia neonatorum. Hot-water bottles (those of galvanized India-rubber are best) may be laid over the hypogastrium, and the bowels kept free by enemata, or doses of Epsom salts. As to the rare cases of extremely small os uteri, these are ususlly accompanied by an undeveloped condition of the uterus. To assert, as Dr. Marion Simms does, that the treatment of the majority of uterine diseases should be surgical, seems to the author to be absurd in the highest degree. According to that gentleman, who advises incision of the cervix more than even Dr. Simpson or Mr. Spencer Wells, this operation produces surprising and salutary effects in dysmenorrhœa, which, in his eye, is always mechanical. Incision may give rise to fatal hemorrhage, according to Dr. Kidd, in the Dublin Obstetrical Society, 1866. And Dr. Gream, of London, says, that the division of the cervix sometimes brings on either a consecutive relaxation, which is prejudicial to gestation or a scar. Dr. Barnes, in cases of conical cervix, divides the external os uteri, whereas, Dr. Greenhalgh and Routh say that in the great majority of cases the stricture is at the internal os uteri. In France and in Germany there

are but few who agree with the practice of Sims, Greenhalgh, and Routh on this point. The uterus may suffer terribly from these heroic practices, and abscess in the pelvic cavity may arise from them, according to West and others. The introduction of the uterine sound, or of various sizes of sounds, may sometimes do much good in mechanical dysmenorrhœa, and the use of tents of laminaria digitata is often indicated, until the uterus is large enough to let enter a sound of the size of a No. 9 catheter. The hysterotomes of Simpson, Greenhalgh, or Mathieu, are only required in cases of cicatrix after laborious confinements.—*Medical Press and Circular*, October 2 and 9.

ART. X.—*On the Internal and External Orifices of the Uterus: their Anatomy, Physiology, and Pathology.* Read before the British Medical Association. By J. HENRY BENNET, M.D.

Dr. Bennet commenced by stating that, owing to the non-recognition of some important facts connected with the anatomy and physiology of the orifices of the uterus, which he pointed out twenty-four years ago, in the second edition of his work on "Uterine Inflammation," practice continued in a chaotic state as regarded the pathology and treatment of these orifices. Thus, some practitioners, following the example of the late Sir James Simpson, constantly saw stricture of the os uteri internum in varied morbid uterine conditions, and divided it in a routine manner; whereas other practitioners, of whom Mr. Marion Sims was an illustrious example, in exactly the same class of cases, all but ignored stricture of the os internum, and divided the os externum, along with the cervix uteri, down to its vaginal attachments. Thus, the practice of one class of practitioners was negatived by that of the other. He himself still thought that they were both wrong—pathologically and surgically—in a very large proportion of the operations performed. Anatomically, the uterus presents two cavities—that of the body of the uterus, and that of the neck. The larger cavity—that of the body—was separated from that of the neck by a vital sphincter, formed by the circular fibres of the cervical structure. There was not a

distinct demonstrable sphincter, like that of the anus, but the circular fibres of the cervix exercised the functions of a sphincter, vitally closing the uterine cavity. It was worthy of remark, that all the large cavities had sphincters. This vital contraction of the os internum resisted the introduction of a sound in the healthy female, although it yielded to the gentle pressure of a small wax bougie, previously warmed. Thus the non-passage of a sound, on examination, was the natural healthy state, and not the sign of a stricture requiring operation. An open patalous condition of the os internum, on the contrary, implied in most cases inflammatory disease, or morbid aggrandizement of the body of the uterus. Dividing the os internum in these cases, was, generally speaking, mere interference with a healthy normal anatomical state, and not justifiable. This vitally closed os uteri relaxed evidently during menstruation, as it also probably did for conception. In some exceptional cases, however, of congenital or pathological dysmenorrhœa, or in pseudomembranous dysmenorrhœa, the os internum did require dilatation or division. The os internum, although less vitally contracted, was normally closed; and if a good sized bougie could enter with ease, its division down to the vagina was not justifiable. He did not see how the surgical production of one of the accidents of labor—laceration of the cervix—could cure dysmenorrhœa, sterility, etc. He thought these anatomical points should be definitely settled, as a necessary guide to practice.—*Medical Times and Gazette*, Aug. 24.

ART. XI.—*Prediction of Sex in Utero.* By T. J. HUTTON, M.D., Resident Physician to Long Island College Hospital.

Dr. Hutton, in substantiating the assertion advanced by Tyler Smith and others—that not only can pregnancy, in its advanced stages, be determined by auscultation, but also the presentation, position, and sex of the fœtus *in utero*—submits the following essential points from the clinical records of seven cases as a proof of the practicability of this rule: Fœtal pulsations, heard below a horizontal line dividing the uterus into two equal parts, denote vertex pulsation: above it, breech presentation; below it and to the right second position. When the fœtal pulsations number 144

per minute, it is a female; 124 per minute, male. As deviations from this rule, or average, will doubtless be encountered, he ventures to add that a variation of six beats per minute from 124 upward or from 144 downward will not endanger a diagnosis, provided auscultation be practised in the ninth month of pregnancy. In his cases this rule was his sole guide, and without a single failure.—*New York Medical Journal*, July.

ART. XII.—*Rare Case of Extra-Uterine Pregnancy.* By S. F. STARLEY, M. D., Fairfield, Texas.

Early in December, 1872, I was called to see, in consultation with Dr. W. G. McInnis and my son, Dr. W. F. Starley, a lady, who, seven weeks before, had been delivered of a living child. She was attended at the time of delivery by an eldery physician, who I belive abandoned the case before Dr. McInnis was called in. At the time of our visit, we found her very much exhausted, pulse 140 per minute, anorexia, and occasional naseau and vomiting.

The abdomen was as large as that of a woman at full term, and the outlines of a full-grown fœtus could easily be made out through the thin walls of the abdomen, as the woman was quite emaciated. She stated that vigorous movements of the child had continued from the time of her delivery up to within a few days of our visit. This statement was corrobborated by several ladies present, who declared that they had both seen and felt the fœtal movements as described by the patient. At the time of our examination there were no movements, and no sound of the fœtal heart could be heard.

We administered chloroform, and, after dilating the cervix uteri, explored the uterus to the fundus, with the fingers, which was readily accomplished as the womb was pressed down in the pelvis by the bulk and weight of the tumor above. With the fingers in the uterus, we could distinctly feel the resisting body of the fœtus through the uterine parietes.

The patient and her husband informed us that there had been no tumor or enlargement of the abdomen previous to her pregnancy, which was her first.

Our diagnosis was extra-uterine pregnancy of the kind known as ventral.

Owing to the extremely exhausted condition of the patient, we did not think that she could survive any operation for the removal the of fœtus. We placed her upon sustaining treatment with the hope that she would rally sufficiently to admit of the performance of gastrotomy, but she continued to decline, and died some two weeks after our visit.

It is to be regretted that no *post-mortem* examination was made. This was unavoidable, as her residence was seventeen miles from town, and we were not informed of her death until several days afterward; and, even had we known of it, her friends would not have consented to an autopsy.

The only case that I have been able to find upon record, where a woman went to full term with both an intra- and extra-uterine pregnancy, is the one reported by Mr. Louis R. Cooke, in the fifth volume of the "Transactions of the Obstetrical Society of London," and quoted by Dr. Alfred Meadows, in his "Manuel of Midwifery." "The patient was delivered at full term of a dead child, when it was observed that a large tumor existed in the abdomen. The patient died in forty-eight hours, and, on opening the abdomen, a full-sized female child was found in the cavity enclosed in its own membranes, and having apparently been developed in the fimbriated extremity of the Fallopian tube." I should have said before that our patient was about twenty-one years of age, and had enjoyed good health up to the commencement of her pregnancy.—*New York Med. Jour.*

Ophthalmology and Otology.

ART. XIII.—*Concerning Cauterization of the Cul-de-sac with Lapis Purus in Corneal Affections.* By Dr. FRIEDR. HOSCH, Assistant in the Eye Clinic of Basel. (*Translated from the Klinische Monatsblatter fur Augeuheilkunde.* November and December, 1872. By WM. F. SMITH, M. D., San Francisco.)

That cauterizations of the *cul-de-sac* with *lapis purus* produces a very quick and salutary effect in many cases of conjunctival irritation in which the swelling, and with it the congestion of the blood vessels, resist all other means, is

an experience already made by every eye-physician. These cauterizations also act very kindly in corneal affections, especially in those of an ulcerative and destructive form. In such forms, in spite of the most careful treatment, sometimes the looked-for vascularization of the cornea either does not appear at all, or else appears in a very imperfect degree; new infiltrations continually spring up, which being destroyed, during the consequent ulceration appear at one time better and at another time worse. When we examine the conjunctiva in these cases more closely, we find it injected by a dirty red color, and generally somewhat swollen. The *cul-de-sac* which is easily made to present itself, by inverting the lids, shows itself to be loosely swollen, at one time more and at another less reddened. This swelling of the *cul-de-sac* appears to be, in such cases, the impediment to the formation of the vascularization of the cornea. Now if this is cauterized by the *lapis purus*, the relative conditions often changes themselves, completely, during the first day. This injection which up to that time had presented an asthenic character, becomes lively; the cornea becomes vascularized, etc.; the infiltration, ulceration, etc., begins to heal. In many cases one such a cauterization is sufficient, in others a second may be necessary. We accomplish our purpose quite quickly and certainly in this manner, provided that the mentioned relations exist.

The only hint that I can find in literature concerning this object, originates with A. *V.* Græfe. In Vol. VI of the Archivs für Ophthalmologie (Abth. 2, p. 165), in a short essay on the Therapy of Chronic Keratitis, he uses the following language: "Still another ground for the protracted or relapsing course, which I wish here in particular to mention, lies in this: that in a certain period of the disease the lids become more swollen, and the eye begins to form some secretion, a condition which announces a lively participation on the part of the conjunctival sack. It is this which causes and keeps up an inflammatory softening of the corneal part. If one everts the upper lid in similar cases the tarsal portion of the conjunctiva is found somewhat red, but not seriously diseased; if complete ectropion is accomplished (*the sack being exposed*) one perceives that the conjunctiva lying between the border of the cartilage and the reflected portion, is the seat of a local swelling or pad. Here is the point from which started the subsequent difficulty in the lids. Corresponding to this, a correct change of the respective parts wonderfully promotes the healing and insures its continuance. I touch the part with the mitigated stick, in some cases even with the pure nitrate,

and neutralize it in the ordinary manner." Further, Græfe gives a few precautionary measures in regard to performance of the cauterization and represents the entire procedure, when correctly carried out, to be absolutely painless. These cauterizations of the *cul-de-sac* in asthenic processes of the corea with advancing decay, have been practised already for some years in the eye clinic at Basel, in a whole list of such cases, with very good results. And whilst I dare to assume that the matter is not yet generally understood, I have with pleasure followed the suggestion of Professor Schiess, to collect together some of the most important cases and to excite the interest of the profession in this, as it appears to me, important object. In the epicritical remarks following. I reserve some further cases to be here more transiently mentioned, in which action of the cauterization was not so plain:

CASE I.—Lina U., *aet.* 16, entered the clinic July 30th, 1869, with large ulcers bordering the right cornea, and a few smaller corneal ulcers, besides strong œdema. In spite of every possible method of treatment in its turn, (chamomile poultices, cataplasms, punctures, pressure bandage, scarification, touching the *cul-de-sae*, with the mitigated sticks), having been followed out, only transitory improvements resulted, followed by a condition worse than ever.

On the 4th of September, for the first time, cauterization with the pure stick, was made in the *cul-de-sac*. On the same day, a change for the better was already visible, with beginning vascaularization of the cornea. The same cauterization was afterwards repeated three times, twice in combination with scarification. The cornea became vascularized more and more, and the ulcers healed. On September 26th, patient was able to leave cured, $S = \frac{4}{200}$; on November 1, $S = \frac{1}{10}$.

CASE II.—Cölestine P., *aet.* 3½ years, entered the clinic November 11th, 1870, on account of an ulcerative keratitis and parenchymatous clouding the cornea of the right eye. In spite of cataplasms and atropia, there was no improvement; also touching the *cul-de-sac* with the mitigated stick, only transiently assisted; the cornea did not become suitably vascularized, and fresh infiltrations soon appeared. The mucuous membrane was of a dirty red color, and somewhat œdematous. November 30th, cauterization of the *cul-de-sac* with the pure stick was practiced. At the second cauterization (December 2d), vascularization of the cornea beginning, absorption of the infiltration, and healing of the

ulcer began. On December 9th, the third cauterization was made; December 18th, the patient was discharged cured.

CASE III.—Carl C., *aet.* 3 years, had burnt himself in the right eye with hot coffee; entered the clinic October 28th, 1870; very strong injection of the conjunctiva. Cornea cloudy in the upper part, and in the lower part softened and yellow colored; in the anterior chamber, a considerable collection of pus; cataplasms and atropia were ordered. In the night, perforation of the softened portion, and prolapse of a large portion of the iris; compress bandage now applied. In spite of this, there was increase of the prolapse and progressive corneal softening; also chamomile fermentations, alternated with the compress bandage, did not arrest the process; as little, also, did vascularization of the cornea show itself after excission of the prolapse. The decay is now increased to such an extent, that the entire lower half of the iris lies free, and only a small portion of relatively normal corneal membrane is found above. November 4th, the *cul-de-sac* was touched for the first time with the pure stick. Repitition of the cauterization the 5th, 6th, 7th, and 8th of November. Finally, the cornea began to be vascularized from above. In a few days, the entire limbus became vascularized. The cauterization was renewed eight times; November 28th, the prolapse was also excised. This now remained back, and cicatrized rather quickly, because well vascularized. On December 21st, the process could be regarded as finished, and the patient went away. The small portion of normal cornea remained in a good state of preservation.

CASE IV.—Marianne Z., *aet.* 6 years; entered the clinic January 3d, 1871, with a high degree of softening (malacie) of the right cornea. Cataplasms and atropine were ordered. Perforation occurred during the night; pressure bandage ordered. The destroyed portion was slowly pushed off; a clean loss of substance was established. On account of insufficient vascularization, this healed very slowly. The conjunctiva, particularly in the *cul-de-sac,* still swollen. This portion was touched with the pure nitrate on January 23d. Already on the next day, there was good vascularization of the cornea. On the 7th of February, cauterization was repeated. The normal corneal district now quickly maintains itself at the expense of the opaque cicatricial membrane. February 20th, the patient left cured.

CASE V.—Marianna K., *aet* 36, entered the clinic January

14th, 1871, with hypopion-keratitis of the right side (*post variolam*). The cornea still normal only on the inner side. The Sämischen operation was made and the wound reopened twice daily; in addition, cataplasms were applied during the day and the pressure bandage at night. Under this treatment the lateral portion became clear, the central, badly vascularized, became first bluish, then changed into a large ulcer, in which the iris became entangled. On account of imperfect vascularization and swelling of the conjunctiva, the *cul-de-sac* was touched with pure nitrate on January 25th, and as a result, the cornea vascularized itself and assumed a much better appearance. January 31, the cauterization was repeated. From this time the healing process was very rapid. February 6th, the patient left, cured.

CASE VI.—Franziska, Sp. *aet.* 29, entered the clinic March 26th, 1871, with a deep crescentic marginal ulcer, strong clouding of the rest of the cornea, and a collection of pus in the anterior chamber (*post variolam*). The Sämischen operation was immediately performed, as in the last case; the cornea thereby became better, however the vascularization remained very insufficient. The *cul-de-sac* was cauterized with pure nitrate on the eighth of April. On the eleventh of April, the entire cornea was vascularized, and the ulcer was in complete process of healing. The patient left healed on the twenty-fourth of April. $S=\frac{1}{10}$. On June 9th; $S=\frac{1}{2}$.

CASE VII.—Elise H., *aet.* 4, entered the clinic April 17th, with keratitis pannosa of the left side, with superficial ulceration of the cornea at different points. With chamomile poultices (in conjunction with atropia) the cornea grew worse. Also with cataplasms, only slight improvement. The *cul-de-sac* was touched with pure nitrate April 24th. Better vascularization and beginning of clearing up of the cornea was already determined on April 26th. The cauterization was repeated four times. The patient was able to go out cured on the twenty-fourth of May.

CASE VIII.—Marie G., *aet.* 10, entered the clinic October 23d, 1871, with a large four-cornered ulcer of the cornea, with yellow infiltration at the bottom and strong œdematous swelling of the conjunctiva, left side. Ordered: chamomile poultices, atropia, and at night, the pressure bandage. On the twenty-fifth of October there was fresh infiltration; not the slightest vascularization of the cornea; great swelling of the conjunctiva. The *cul-de-sac* was touched with the pure

nitrate. October 27th, the swelling of the conjunctiva was less, the bottom of the ulcer infiltrated only in the center, the small infiltration had disappeared, and the cornea was well vascularized. The cauterization was twice repeated, whereby the ulcer quickly cicatrized. November 26th, the patient departed cured. S=$\frac{1}{2}$.

CASE IX.—Clarence B., *aet.* 8, was received Nov. 1, 1870. On the inner and upper portion of the right cornea a deep marginal ulcer existed, a smaller though similar one on the upper and outer portion, below a middle sized iris prolapse, the rest of the cornea strongly clouded, the anterior chamber obliterated, swelling and strong dirty-red injection of the conjunctiva. By the continuous pressure bandage and atropia there was light improvement. However there was still insufficient vascularization. Cauterization of the *cul-de-sac* with the pure nitrate was made on the sixth of November. Two days afterward there was already a better appearance and better vascularization of the cornea. The cauterization was afterward repeated four times, the prolapse became vascularized, then cicatrized, and the ulcer healed. The patient went away cured on the thirtieth of Nov. S=$\frac{2}{5}$.

When we examine the recorded cases more closely, we see that in the most of them, all possible methods of treatment had already been tried before the cauterization was resorted to. On this account the therapeutic worth of the same is only exalted, and it can hardly be thought that the end might have been perhaps so well accomplished in any other manner. I wish here briefly to mention two other cases, which belong to this category, but which I have intentionally omited in the enumeration of the others, because in them, the destruction had already advanced so far, before the cauterization, that any nameworthy visual power could not remain. The one concerns a man *aet.* 28, who had burned his left eye with soda powder. Unfortunately the cauterization in this case was begun too late, so that only the formation of a staphyloma or the possible outbreak of a panophthalmitis was prevented, and a weak leucoma, in general the most favorable termination of such a condition, was attained. The diminution of the injection of the swelling and of the pain was nevertheless constantly very striking. The other case concerns a man 52 years old, who had wounded his left eye with a grain of corn, and who had come to us eight days later with an exquisite hypopion-keratitis. Here also the destruction extended in spite of cataplasms, bandages, incisions of the ulcer, etc.; new infiltrations reformed, which again fell away. Only

after cauterization of the *cul-de-sac* with the pure nitrate, quickly followed good vascularization of the original ulcers and of the fresh infiltration; the cornea became clear in a relatively short time and the œdema of the conjunctiva rapidly diminished. In this manner, instead of the feared *phthisis bulbi*, a large adhering leucoma was preserved, by which a rather large portion, inwards, remained free, suitable for a later iridectomy. Perhaps in both these cases—from the first ones mentioned we can say this with considerable security—the result would have been much more favorable had the cauterization been made sooner. Now as far as the cauterization itself is concerned, it is easily effected, as precisely in the here considered cases the *cul-de-sac* is brought to view without difficulty. The pure nitrate of silver should be employed because in these cases there is always danger in delay (*periculum in morá*). In these cases a larger cauterized district cannot be allowed as in blenorrhagic conditions, but only a quite small eschar made with the point of a pencil of the stone is indicated and should fall very narrowly in the most curved portion of the *cul-de-sac*. A careful neutralization should be effected immediately. Before (the cauterization) it is always well to touch the part with a dry cloth in order to obviate spreading of the nitrate of silver. In this manner one never has troublesome conjunctival cicatrices to lament.

A slight increase in the irritation generally follows the cauterization, which however soon passes away and gives place to a rapid improvement when the tarsal portion of the conjunctiva has been properly spared the action of the caustic. If the swelling of the *cul-de-sac* does not go down and no improvement in the vascularization takes place after the first cauterization, it is judicious to repeat it, not however before the eschar formed by the previous cauterization has been thrown off. The increase in the irritation generally appearing after cauterization may be best combatted by the application of cold compresses.

But how are we to explain the rapid change produced by the cauterization in such asthenic corneal processes? Before all let us see which are the blood vessels that run into the cornea, and then in what manner they are affected after the cauterization. Jul. Arnold, who, as is well known, has made very accurate examinations concerning the vascularization of the cornea, mentions in his dissertation (die Binderhaut, der Hornhaut und der Greisenbogen, Heidelberg 1860), three groups of vessels belonging here: 1. The group of conjunctival vessels, which arise from the vessels of the *tunica intima* of the scleral membrane, is quite easily sepa-

rated, and derives its blood from the upper and lower palpebral and lachrymal arteries; 2. The subconjunctival groups of vessels formed from that capillary network, which lies in the conjuctival ring itself. They arise from the muscular arteries, and at this point twist around in the form of loops; 3. The vascular group of the subepithelial layer which derives its blood from that ciliary artery which sometimes sooner, sometimes later, enters the sclera near its margin. The latter pass in their course through the sclera through the conjunctival ring into the subepithelial layer of fibrous tissue to be found at the margin, and soon after rejoin the same vascular trunks from which they started in order to ramify with the same, often more, or often less, superficially. At all events this last mentioned layer of blood-vessels principally comes under our consideration.

On the first day after the cauterization, already we often see blood-vessels pass into the cornea from the conjunctival ring. These force their way gradually towards the center of the cornea at which they send out at the same time diagonal and oblique anastomosing branches. The net of vessels thus originating, presents, in the most cases, an irregular form; at one point having forced itself further forward than at another. In one case however, at present under treatment, the vascularization passed with great regularity up to the middle of the cornea. A perfect circle of blood-vessels formed itself everywhere of equal width, which advanced concentrically forwards by sending out little branches which anastomosed with one another. The conjunctiva which in the first hour after the cauterization is generally more swollen, and injected soon becomes less œdematous; the previously dirty-red injection gives place to a more brilliant color. Later, the more superficial vessels empty themselves, and between the meshes of the net which they form in the underlying tissue, the sclerotic may be seen. These deep vessels also appear to be exactly those which being filled favor the vascularization of the cornea.

To that extent to which the new formed vessels advance, on the cornea, the existing infiltration is re-absorbed and the ulcer brought to the healing process. After complete healing, the new-formed vessels disappear in the ordinary manner, viz: by fatty metamorphosis. Finally, we come again to our original question, how then particularly can the cauterization of the *cul-de-sac* cause the formation of so wholesome a change in the condition of the blood-vessels. Von Græfe, in his classical work on Diptheritic conjunctivites and the employment of caustic in acute inflammations (Arch. f. Ophthalm. Bd, 1 Abth. 1. p. 229), gives us the fol-

lowing explanation: "The caustic increases, it is true, the overflow of blood by its direct action, but the quickly appearing determination of blood caused by the irritation evdently gives to the vessels an impulse to contract, which is the sooner obeyed, the sooner the separation serviceable to the throwing off of the eschar makes an emptying of the blood vessels necessary. Perhaps, also, an account of the sudden release of serum, which immediately follows the application, the chemical composition of the blood is so changed that the transudation in consequence of this latter is moderated by known laws to the normal condition."

In this manner, as the transudation in the mucous membrane is abated, the œdema must be diminished and the local pressure of the eschar may also contribute somewhat to this end. With the reduction of the œdema, the pressure upon the deep blood vessels also ceases, which, precisely in the relaxed membrane of the *cul-de-sac*, must be quite important, it being particularly disposed to œdematous swelling. Perhaps, also, a more direct irritation to the walls of the deep vessels, which, as we have seen, are of great importance in the vascularization of the cornea, is exercised, by which they are incited to a more active filling and to the formation of the above mentioned out-runners on the cornea. The somewhat *a priori* paradoxical affair, that, with the diminution of the redness of the mucous membrane, the cornea begins to become vascularized, in this manner becomes quite natural. The superficial conjunctival œdema is also set aside by the irritation of the cauterization, and by it also a more active circulation in the episcleral vessels is excited. The proceeding does not present in itself the slightest difficulty. The pain, by good neutralization, is, it is true, not exactly *null*, as V. Græfe has asserted, but it is not considerable. In most cases, the proceeding must not be repeated very often. The results are often very striking, and we ourselves were often astonished how quickly the vascularization, sought for in vain by every possible irritating measure, appeared after the proper application of the caustic. We repeat expressly that we recommend the proceeding only in cases of evident swelling of the *cul-de-sac*.

ART. XIV.—*Exophthalmos of Left Eye, with entire Loss of Sight, Cured by an Operation.* By J. F. NOYES, M.D., Professor of Diseases of the Eye and Ear in the Detroit Medical College, and Ophthalmic Surgeon to St. Mary's Hospital.

Rosa, *æt.* 18, when four years old, met with a terrible accident. She was trod upon by a horse, and the hoof of the horse had been planted on the face and nose at the junction with the forehead, crushing the bones so that her life was despaired of. The surgeon in attendance manipulated and replaced the fragments of the bones of the nose and face, as well as he could, and recovery unexpectedly took place, and she grew up to be a healthy and fine-looking girl, without any deformity.

In May, 1871, she was brought to me on account of a protrusion, with an entire loss of sight of the left eye. The exophthalmos had begun to show itself three years previously, with occasional attacks of inflammation, pain and tenderness at the nasal side of the socket. An examination showed that the eyeball was crowded out of the orbital cavity by a hard tumor located in the inner and upper part of the socket, giving to the organ a strong deviation outwards, and the protrusion was so great that the lids could with difficulty be closed over the eye. From this condition it appeared now evident that the loss of sight in the eye was due to pressure or the stretch thus put upon the optic nerve, and that if this could be successfully removed, vision might return.

May 29, she presented herself before the class to undergo the necessary operation. She being chloroformed, an incision was made of more than an inch long through the integument down to the bone at the inner and upper border of the orbital cavity, and immediately a large quantity of thick pus flowed out. Passing my index finger now into the cut, I discovered a rough protuberance of necrosed bone nearly as large as the end of my finger, and the orbital plate denuded of periosteum extending deep into the socket. When I had cut away and removed all of the projecting necrosed bone, I discovered that there was an open communication with the frontal sinus. The cut was kept open by introducing a soft lead wire bent upon itself a number of times, so as to allow of a free discharge after the manner of Chassaignac's drainage tubes. The discharge continued for four months, when it entirely ceased, and the wound

healed up by granulations. At this period all the swelling and inflammation had entirely disappeared, and the eyeball had also resumed its normal position in the orbit, with the sight perfectly restored. No scar or deformity about the eye is at present to be seen.

There can be no doubt, I think, from the history of the case, that the injury produced the disease in the orbit.—*Western Med. Advance.*

ART. XV.—*The Labyrinth of the Ear.* By H. KNAPP, M. D.

At a meeting of the Medical Society of the County of New York, Dr. Knapp delivered a very interesting lecture upon "The Labyrinth of the Ear, its Structure, Functions and Diseases." After a brief explanation of the nature of sounds, as produces by the vibration of ponderable bodies; of the distinction between *noises*, produced by irregular vibrations, and *musical tones*, produced by rhythmically recurring ones; and of the three elements of *pitch*, *intensity* and *quality* (*timbre*), which characterize every tone—the first due to the frequency with which the sound-waves fall upon the ear; the second, to the excursion of the vibrating particles; and the last, to the combination of the high harmonics, or "over-tones," with the fundamental note, as demonstrated by Helmholtz—the speaker came to the description of the auditory organ as an apparatus adapted to the preception of sounds, and to the discrimination of its several characteristics. Modern research has been so active in this field, that the mechanical explanation of audition, only a few years since one of the most difficult and obscure of physiological problems, might now be considered among the clearest and best settled.

Assuming the familiarity of his audience with the anatomy of the external and middle ear, and of the osseous framework of the internal, the doctor confined himself to a minute account of the membranous labyrinth, referring particularly to the late observations of Waldeyer and Gottstein, some of which he had himself confirmed. As we can mention only a few points of his crowded discourse, we must further assume that our readers know so much of membranous labyrinth as may be learned from recent anatomical text-books, such, for example, as the last English edition of Quain.

The mode of connection between utricle (common sinus) and the saccule, has long been a matter of doubt. Of late, however, what seems to have been an old discovery has been made anew, and it is demonstrated that from either sac there proceeds a slender duct, the two uniting in a single one (after the manner of the cystic and hepatic, in the common coledoch) which passes through the acquæductus vestibuli, to open into the so-called arachnoid cavity. Thus the endolymph is in direct connection with the fluid occupying the space between the arachnoid and the dura mater. Furthermore, the loose areolar tissue surrounding the filaments of the auditory nerves, as they pass through the cribriform plant at the bottom of the meatus interuus, permits a tolerably free communication between the perilymph and the sub-arachnoid fluid. It is not surprising, therefore, that the auditory nerve, expanded on a membrane between the endolymph and the perilymph, should so speedily respond to changes of intracranial pressure.

The terminal filaments of the vestibular nerve, being connected with the otoliths of the sacs and the ampullæ—bodies apparently ill adapted to rythmical vibration—would seem intended for the preception of noises. [This is what we should expect from finding the vestibule, with its suspended otolith, as the most rudimentary form of the ear, serving, probably, to warn the animal of approaching danger by the noise attending it. The intensity of the sound is, no doubt, rudely measured by the degree of commotion into which the otoliths are thrown, though in the higher animals this is more perfectly accomplished by the muscles of the tympanum. Is it not possible that the hair-like processes, extending beyond the ear-sand into the endolymph, may, by vibrating as free rods, also gave some perception of pitch, though far less delicate and extended than that furnished by the cochlear apparatus?]

Coming to more complicated cochlea, it will be remembered that the membrana basilaris, which extended from the edge of the bony lamina spiralis to the cochlear wall, and upon which rests the organ of Corti, is divided into an inner *zona tecto vel arcuata*, covered by arches formed by the rods of Corti, and an outer *zona pectinata*, characterized by its coarse transverse striæ. Now these striæ are found to be strings imbedded in the substance of the membrane, each being attached at its outer extremity to the spiral ligament, and at its inner to the foot of one club-shaped ciliated sells which, in a fourfold series, lean upon Corti's rods—the very cells to which have been traced the terminal filaments of the cochlear nerve. As the *zona pec-*

tinata increases in breadth from base to apex of the cochlea, these strings are of regularly varying length; they appear also to be of different thickness; and if we suppose, with Todd and Bowman, that the ligamentum spirale is really muscular, it is conceivable that they may vary in tension, being *tuned* by this "cochlear muscle." The strings are, doubtless, isolated from each other by a non-elastic "cement," which allows each to vibrate without affecting its neighbors.

Consider that there are some three thousand of these strings, each connected with its own ciliated cell, and communicating its slightest tremor to its special nerve-filament, and we have a resonance-apparatus manifestly delicate enough to discriminate all the shades of tone the ear is able to appreciate. In obedience to the familiar law of resonance, a given note will determine a responsive vibration in that particular string of the whole three thousand which is tuned in unison with it, and so send notice of its exact pitch to the brain. A chord will throw into vibration several strings, each sending its separate message to its own brain cell; and the combination of these independent sensations will give the sense of harmony. This, therefore, requires a kind of intellectual process for its appreciation. Quality, as we have seen, is but another name for harmony, and must be appreciated in the same way; the *timbre* of a tone being determined by the number and relative force of the several harmonics that compose it.

However perfectly an organ may appear adapted to a certain function, still any theory of its function based on stricture must be considered merely speculative until verified by experiment. Now the inner ear is removed, not less by its delicacy than by its inaccessibleness, from the possibility of satisfactory direct experiment; but here, fortunately, we may take advantage of the pathological conditions —nature's experiments—which often guide us as surely as any we might contrive. Some of the following points have been established by *post-mortem* examinations, but most of them still require this confirmation.

We may have a diminution of hearing-power for noises without a corresponding diminution of the power to distinguish musical tones, and *vice versa*. The watch may be used to determine the one condition, a musical box to determine the other. It is probable that in the former case the vestibular and ampullar structures are chiefly affected; in the latter, the cochlear.

Again, as some persons are blinded to certain colors, so others are deaf to certain notes. These defects in the range

of audition are most frequently found in the higher notes, sometimes in the lower, and more rarely in the middle of the series. For the defect at either end of the series, the explanation at once suggests itself that either the higher or lower strings are wanting, or that, as a whole, the apparatus is tuned to a lower or higher pitch. For a defect in the middle notes, we must suppose either an arrest of development of the corresponding strings, or their subsequent morbid alteration or destruction. It is clear that a destruction of the nerve-filament connected with a string or of the brain-cell from which it takes origin, would produce the same effect.

Instead of deafness to certain notes, there may be a painful hyperaudition of them. This must probably be referred to a morbid sensibillity of the nerve or its originating cell, unless we suppose the string in question to have one or more others tuned in unison with it, and with like nervous connection, or to have its vibrations reinforced by the resonance of some other structure.

Perhaps the most curious condition is that in which a certain note is heard, not as a single one, but as a discord formed by the association of the note with others immediately above the below it. Here we may imagine that the "cement" between the respondent string and its neighbors has become hardened, destroying its isolation; so that it cannot vibrate without compelling them to do so. And, though the vibrations of all may possibly be synchronous, yet the brain will interpret the message from each string as indicating that note to which it was meant to respond. This affection may be termed *diplakousis monauralis*, to distinguish it from another, *diplakousis binauralis*, in which a given note is heard of differing pitch by the two ears.

There are some frightful cases where persons in apparently sound health become totally and hopelessly deaf in a few minutes. They are seized with apoplectic symptoms, in which giddiness and loss of equilibrium are especially prominent; the attack passes of speedily; but permanent deafness remains. This is due to hemorrhage into the labyrinth, known as Menière's disease. The same effect may result from fracture through the bony labyrinth—a frequent situation of fracture by *contre-coup*, since the petrous bone is here weakened by its numerous chambers, while it lies in the line of transmission of force from the vertex to the base of the skull.

The loss of equilibrium, just mentioned as depended on labyrinthic lesions, points to a function of the semicircular canal as yet imperfectly understood. We only know that,

in some unexplained way, these do seem to preside over equilibrium, and that an animal will turn or fall in one way or another, according as one or another of them is injured.

Deafness may be proceeded by syphilitic inflammation of the labyrinth. Many of these cases present all the symptoms of Menière's disease; but if their syphilitic origin be established, the prognosis, instead of being hopeless, is quite favorable.

Purulent inflammation of the labyrinth is not infrequent, and it is especially apt to occur as secondary to cerebro-spinal meningitis.—*The New York Medical Record,* June 1.

Editorial.

"*Medical Union.*"

The above title headed an editorial in the *N. Y. Weekly Times* for 7th Feb'y. As the article was circulated in a paper universally read and presents a popular view of the causes for the difference between practitioners of either of the prominent schools, and as it conveys a totally false impression (although appearing true to those who do not know the real question at issue) we propose to freely expose it and explain wherein we differ, feeling that in so doing we give the correct explanation of why it is impossible for a "regular" to meet an "irregular;" why they *must* differ, why "Medical Union" of the kind referred to can never take place, provided each or either party remains honest.

We may be thought by many to consume time and space in the discussion, which might better be directed to other subjects, and, if our readers were exclusively orthodox medical men, we would be of the same mind, but our *Lancet* circulates extensively among non-professional readers, and in the country, among professional men who have to cope with quackery in every form from homœpathy to patent medicines, men whose opportunities for professional reading are

few, and who are constantly pestered with arguments very little like the quotations we give; it is on account of these that we notice what we would otherwise overlook, in the hope that we may assist some weak brother in standing, or drop a hint in heretical ground that may be of service.

In no place could a "union," such as the *Times* referred to, be more successful than in our own San Francisco, where, we venture to assert, are more men of the requisite looseness in professional honor to be found, than anywhere else in our country. But to the article.

"The hostility between these two schools of medical science has been intense, and has apparently arisen from causes which could not be removed save by the absolute surrender of the distinctive principles of one or the other school. The regular physician has so often and so plainly proved the homœpathist to be the worst of quacks, and the homœpathist has so conclusively shown his rival of the elder school to be a bigoted adherent of a system of exploded folies, that there seemed to be no possible ground upon which the two might meet and be reconciled. Nevertheless, a movement toward that end has actually been begun by certain prominent homœpathists of this city, who have established a review which supports the doctrine that 'it is the right and duty of every qualified member of the medical profession to use his own judgment as to the proper methods to be adopted for the cure of his patients.'

"In discussing the probability of a treaty of peace between the hostile doctors, it must be borne in mind that the homœpathist of to-day differs widely from the original disciples of Hahnemann. When homœpathy first appeared, its practitioners believed in the potency of infinitessimal doses; adopted, without any reservation, the doctrine that *similia similibus curantur;* and deduced from the Hahnemannic theory, that 'the totality of the symptoms constitutes the disease,' the corallary that the physician need never trouble himself to make a diagnosis, and that hence he need know nothing of physiology. To enumerate the symptoms of a patient, and to consult the pages of Jahr for the corresponding remedies, was the whole duty of an original homœpathist. We can easily perceive why the 'regular' school looked upon this sort of practice as a quackery pure and simple.

"But a great change has since passed upon the homœpathist. To-day he is, as a rule, as thoroughly educated as is his rival. While a few purists still cling to the theory of

the efficacy of high dilutions, the average homœpathist prescribes doses that are quite as powerful as those of the 'regular' physician. He may give his nominal assent to the theory that the totality of the symptoms constitutes the disease, but practically, it has no influence over him, and he bases his practice upon a thorough diagnosis, and prescribes such remedies as experience has taught him are suited to the disease in hand. Meanwhile, his rival has partly modified his own practice. He has to a great degree abandoned the use of venesection, and has grown less lavish in dispensing calomel. He has, moreover, learned that medicine need not be necessarily clumsy in bulk, and nauseous in taste. Though he does not call his remedies by the names used by the homœpathist, yet each uses precisely the same *materia medica.* In short, the two schools which originally were diametrically hostile in theory and practice, now differ in name rather than in fact, and in most important respects there is little real difference between the practice of an accomplished regular physician, and that of the intelligent homœpathist who has abandoned the use of infinitesimal remedies.

"It does not, therefore, seem entirely hopeless to look for the day when the rival doctors will cease to edify the public by denouncing one another as quacks and butchers, and will consent to recognize the honest, capable physician, whatever may be the college from which he receives his diploma. At present this feud is not only unworthy of liberal-minded men, but it really works an injury in that it debars the physician of one school from using the valuable discoveries of his rival. The broad principle that the physician should 'use his own judgment as to the proper methods to be adopted for the cure of his patients,' furnishes a ground of union for the intelligent adherents of either school. The effort now making toward medical union upon this principle is one which will commend itself to common sense, and may yet lead to the burying of the hostile scalpel, and the smoking of properly-medicated pipes of peace."

The writer of the above, at once divides, homæopathists into two classes—the traditional, and the actual one. He speaks of the former as one of the original disciples of Hahnemann, a purist, a believer in infinitesimal doses and high dilutions, a man totally ignorant of pathology, of medical science in every branch, of anything in fact but a knowledge to read Jahr and having, perhaps, a smattering

of toxicology in order that the remedies selected might be those whose poisonous properties would cause symptoms nearly akin to those caused by the ravages of disease (*simmilia similabus*, etc.), and whose sole knowledge of what ails his patient, is what his patient may be able to tell him. *Such* an one *is* our traditional homœopathist. Those calling themselves by that title do not care to answer to the above description, for it implies too great a degree of ignorance for comfortable existence at the present day. Not only the regular physician but any person who is intelligent enough to have an opinion of his own, has "so often and so plainly proved the homœopathist (as the writer of that article describes him) to be the worst of quacks," that there is no use in adding more, excepting that clearly a union of the regular profession with such is impossible on the grounds of incompatibility of temper alone, for it is an insult to the learning of the present day that such a faith and practice should be called scientific, or such material be in union with any but its own (*simii simiis*, etc).

The other or actual homœopothist is described as one "as thoroughly educated as his rival," prescribing "doses quite as powerful," *nominally* assenting to the Hahnemannic theory, but *really* diagnosing and dosing disease as does his competitor, and the writer advocates "Medical Union" with such an one, and exchange of views by which the physical condition of the sick is to be improved, and the cause of science advanced! After describing what no one with the least particle of culture can recognize as an equal, the writer sets up another sample of what none with the least honesty can affilliate with. Take the actual homœopathist as here delineated, with thorough education and experience gained by observation *nominally* asserting to phantom theories, infinitessimal doses, high dilutions and all the claptrap used to win over weak-minded adults to ungoverned children, while really he uses the same *materia medica*, the same doses and the same reasoning to guide his treatment, and we have one who sails under false colors, who declares one thing while he does another, who gains your money under false pretenses, who *lies* and cheats be-

cause by honesty he could not make his living. This is the one with whom the regular is urged by "common sense" to unite!

The principles, the foundations of the two schools are so diametrically opposed to each other, that it is impossible for one to exist where the other is. That no man can serve two masters is as true here as it is in regard to spiritual things, and when a homœopathist is found with a degree from a regular school (and many pride themselves on it) it is a sure sign of professional dishonesty and incapacity to make his living by honest practice. We can see that everywhere around us. It's like the greed for gold that tempts many a weak intellect until no longer able to plod slowly to a support and competency and led by the extravagant mode of living of the present day, the heretofore honest man tests the elasticity of his conscience—to use no stronger term. So with the regular whose mental acquirements may chance to be of that peculiar order not speedily recognized and requited by the community in which he settles, whose aim in life is to make money, honestly if can, but *make money*, who sees what is patent to every one that sugar pills and every quack subterfuge are far more popular than honest dealing, who sees a more rapid success and a quicker practice and he embraces it, but at the loss of honor. Can a conscientious regular be asked to "unite" with such an one? Can an "intelligent homœpathist" "abandon infinitessimal remedies" and remain homœopathist? Can it be imagined that any one can be found to join such "Medical Union" but those whose characteristics the writer of the *Times* article has given? It may be relied on that only such have taken the step for this organization and have dictated the plausible article quoted.

Reference is made to the change in practice in the regular school as if the discovery of homœopathy had caused the modification. Were the science of medicine not progressive, such a supposition might be entertained; but inasmuch as by constant investigation and study, discoveries are made in regard to the human system and its pathological conditions; so, also, *materia medica* gains among

other things. That venesection is no longer the rule is not due to Hahnemann or any of his followers, but to the investigation of students of an entirely different school, and that the remedial properties of a tablespoonful of peruvian bark may be crowded into a pill and make a smaller dose, does not prove that the spoonful of bark was unnecessary or devoid of curative properties when it was used, but it argues that modern science has learned how to extract from it the active principles that made it valuable and how to concentrate them. Chemistry, not homœopathy, caused reduction of doses, and confectionery made them more palatable.

If the writer of that article *knew* whereof he spoke, he insulted every "accomplished regular" when he said that there was little difference between his practice and that "of the intelligent homœopathist." It may be a mark of a "liberal minded man" to recognize and meet as a professional equal every one who appends "M. D." to his name or places "Prof." before it, but we are of a different mind. Look at the professional associates of any homœopathic practitioner and at what does he stop—nothing but the regular school, and that stops him. Apostates, followers of all the "pathys" and "isms," clairvoyants, long-haird and seedy vagabonds who prey on the credulity of the ignorant; freelovers, male and female, who possess the healing power, *any one*, in fact, who has the assurance to call himself Doctor; these meet in consultation, the practitioners who would style themselves scientific, and seek "Medical Union" with those who must have some (and we all lament, it is very often, far too limited) education, some mental discipline before being recognized as qualified to meet their equals or superiors.

There is a way to the much desired "Medical Union," to the "burying of the hostile scalpel and the smoking of properly medicated pipes of peace," and that is by restraining a little our republican tendency to make every one as good as every one else in all respects, and have some limit to one's protection when compared with his more fortunate neighbor.

We refer to properly organized Boards of Examination, free from connection with any school and before which all candidates for the degree of M. D. must appear, and which Board alone could confer the degree. If this were adopted, there might be any number of private schools, any quantity of instructors and an unlimited crowd of students, but a stop would be placed to wholesale graduation, and the end to be obtained, that of securing the much coveted degree (to practice without which would be a misdemeanor), would secure a better class of men and effectually guard against any apostasy, any quackery.

Next to this, which we fear is too radical a change for the present, we would advocate the adoption, by the State, of a school which alone could confer the degree qualifying the holder to practice his profession.

So long as we allow any handful of self-constituted "professors" to organize a school, teach their ideas and graduate all who happens to attend the last course with them, just so long will we have quackery, ill-feeling, professional quarrels and want of "Medical Union." The true remedy lies not in treating the symptoms (homœopathically), but in removing the cause, when the symptoms disappear of necessity.

[We have received the following, which is sent to each member of the society.—Ed.]

Sacramento, March, 1873.

"*Dear Doctor:*—The next annual meeting of the Medical Society of the State of California, will be held in Sacramento, commencing on the second Wednesday in April, 1873.

"The undersigned are happy to announce that there is an increasing interest in this State organization of the regular profession, and that the prospects for a profitable session are of the most favorable character.

"We respectfully solicit your attendance, and earnestly invite your co-operation, either in the preparation of a special paper upon any medical or surgical subject that you may select, or as a contributor to the regular reports.

"As it is the design of the Committee of Arrangements to issue a "Programme" for the session, please send at once to the Secretary of the Committee, Dr. G. L. Simmons, the subject of any essay or contribution you may wish to present.

"J. F. MONTGOMERY, M.D.
"W. R. CLUNESS, M.D.
"G. L. SIMMONS, M.D.
"IRA E. OATMAN, M.D.
"A. B. NIXON, M.D.
"Committee of Arrangements."

We have received from Dr. Atkinson a circular in regard to the next annual session of the *American Medical Association*, which will be held in St. Louis, commencing the 6th of May next. After giving a list of the Committees expected to report, the circular concludes.

"Physicians desiring to present papers before the Association should observe the following rule:—

"'Papers appropriate to the several sections, in order to secure consideration and action, must be sent to the Secretary of the appropriate section at least one month before the meeting which is to act upon them. It shall be the duty of the Secretary to whom such papers are sent, to examine with care, and, with the advice of the Chairman of his Section, to determine the time and order of their presentation, and give due notice of the same * * *.'

"OFFICERS OF SECTIONS.

"*Chemistry and Materia Medica.*
Drs. R. E. ROGERS, Philadelphia, Pa., Chairman; EPHRAIM CUTTER, Boston, Mass., Sec'y.

"*Practice of Medicine and Obstetrics.*
Drs. D. A. O'DONNELL, Baltimore, Md., Chairman; BENJAMIN F. DAWSON, New York, N. Y., Sec'y.

"*Surgery and Anatomy.*
Drs. EDWARD WARREN, Baltimore, Md., Chairman; W. F. PECK, Davenport, Iowa, Sec'y.

"*Meteorology and Epidemics.*
Drs. GEORGE SUTTON, Aurora, Indiana, Chairman, ELISHA HARRIS, New York, N. Y., Sec'y.

"*Medical Jurisprudence, Hygiene, and Physiology.*
Drs. S. C. BUSEY, Washington, D. C., Chairman; A. B. ARNOLD, Baltimore, Md., Sec'y.

"*Psychology.*

Drs. ISAAC RAY, Philadelphia, Pa., Chairman; JOHN CURWEN, Harrisburg, Pa., Sec'y.

"The following amendments are to be acted on, to Constitution:

"*Resolved,* That the United States Marine Hospital Service be placed in the same relative position in the American Medical Association as the Medical Departments of the United States Army and Navy.

"And that, in paragraph 2, of the 2d section, after the words 'army and navy,' the words 'and the United States Marine Hospital Service' be inserted.

"To By-laws. Sect. III.—Standing Committees.

"That, instead of a report on Medical Education, on Medical Literature, and Climatology and Epidemic Diseases, there shall be annually delivered before the Association at its general meetings, an address in Medicine, an address in Surgery, and an address in Midwifery, or the Diseases of Children, the lecturers to be appointed this year by the President; afterwards by the Committee on Nominations.

"Also, in section 6, after the words, 'the chiefs of the bureaus of the army and navy,' be inserted 'and the supervising surgeon of the United States Marine Hospital Service."

"Secretaries of all medical organizations are requested to forward lists of their delegates, as soon as elected, to the Permanent Secretary.

"W. B. ATKINSON, M. D.
"1400 Broad St., Philadelphia."

We have received the first number of "*The Texas Medical Journal,*" a monthly journal of 36 pages, published at Galveston, "devoted to Medicine, Surgery, and the Collateral Sciences," and edited by J. D. Rankin, M.D. The pages are well filled, and from the decided statement of the editor we judge that it is the intention to carry on the enterprise in spite of all obstacles.

We quote: "In the first place, we own the press and the material required to work it; in the next place, the pub-

lishers and proprietors are practical printers, thus obviating the necessity of being under obligations for, or at the expense of, employing labor. In addition to this, ours is a job office, and we can put in the odd times to do the work of the journal, and hardly feel the time. So much for our ability. In reference to our determination, we need only add, that we have legally obligated ourselves to carry on this journal for the period of ten years."

We wish the project success, and cordially welcome it to our list of exchanges.

Gift of a Medical College to the University of California.

[The following correspondence explains itself.—ED.]

Letter from the President of the University announcing the gift.

"UNIVERSITY OF CALIFORNIA,
"Oakland, Cal., March 4, 1873.

"*To the Board of Regents—Gentlemen:* I have been requested by the authorities of the Toland Medical College, of San Francisco, to make known to you their readiness to bestow upon the University the entire property of that institution, with the simple understanding that it is to be devoted, as heretofore, to medical education. The property, real and movable, is valued at $75,000, is unencumbered, and consists of a large and commodious Medical College, on Stockton street (137½ feet by 42½ feet), with the ground upon which it stands; an adjacent lot (of 57½ feet by 80 feet) on Chestnut street, with a brick building upon it; and a fair beginning of a library and museum, with the collections of *materia medica*, plates and diagrams, philosophical and chemical apparatus, and other helps to medical instruction.

"The proceedings of the trustees of the Toland College, at their meeting yesterday, certified by their Secretary, together with a letter from the Dean of the Faculty, communicating this action, and expressing the assent of the founder of the college, are submitted herewith; and the formal deeds will be delivered whenever your willingness to accept this donation is made known.

"Allow me to add, that I believe the liberality of Dr. Toland, in so generously endowing a school of medicine, is without a parallel in the history of medical education in this country; and the unconditioned transfer of such a gift, with

the donor's approbation, from the special Board of Trustees to your care, is a most gratifying token of confidence in the future of the State University, and will enable you without delay to inaugurate a medical department, in accordance with the expectations of the State, expressed in the organic act creating this University.

"I am, gentlemen, yours respectfully,

"D. C. GILMAN."

"Letter from the Dean of the Toland Medical College:

"DEAN'S OFFICE, SAN FRANCISCO,
March 4, 1873.

"*To the President of the University of California—Dear Sir:* I herewith enclose a communication from the Board of Trustees of the Toland Medical College, which you will be good enough to present to the Board of Regents of the University of California, and with it my assurance that the chief donor, Dr. H. H. Toland, has expressed to me in writing his cordial assent to this action of the Board of Trustees.

"In addition to the real property, the gift will include all and every description of property, such as books, preparations, models, instruments, and other apparatus belonging to the college.

"With respect, yours, etc.

"R. BEVERLY COLE, Dean."

"Letter from the Secretary of the Trustees of the College.

"SAN FRANCISCO, March 3, 1873.

"*To the Board of Regents of the University of California:* I am authorized to inform you that at a meeting of the Trustees of the Toland Medical College, held this day, it was voted with entire unanimity, and with the hearty concurrence of the Faculty, including Dr. Toland, the founder, that the President and Secretary be authorized on behalf of the Board to make a due and legal conveyance of all the property of the College to the Regents of the University.

"The proper conveyance will be executed and delivered on our receiving from you an intimation of your acceptance of the trust.

"Hoping that the prosperity of the University in one of its legitimate departments, as well as the cause of sound medical education, may be promoted by the proposed transfer, I have the honor to be,

"Very respectfully, your obedient servant,

"IRA P. RANKIN, Secretary."

Action of the Regents of the University.

"The Board of Regents unanimously adopted the following resolutions:

"*Resolved:* That the Board of Regents have heard with satisfaction the proposal to transfer the property of the Toland Medical College to the University of the State, and that they accept with readiness this unconditional gift.

"*Resolved:* That a committee be appointed by the chair to receive the formal transfer of this property, and that said committee be requested to report to the Board at the next meeting, a plan for the promotion of medical instruction in the University.

(Under this resolution, the Governor appointed as a committee, Messrs. S. F. Butterworth, H. H. Haight, and A. S. Hallidie.)

"*Resolved:* That the Board hereby record their grateful appreciation of the praiseworthy munificence of Dr. H. H. Toland, of San Francisco, in his liberal endowment of a school of medicine, and that they receive the gift which is made in his name, with the belief that by it the University will be enabled in an efficient manner, to maintain the Department of Medicine.

"San Francisco, March 4th, 1873."

We cordially endorse the concluding sentence of the President's letter, and trust that a new era will soon be inaugurated in medical education on this coast.

We have received the Constitution, By-Laws and Fee table of the Northern District Medical Society, and are pleased to see the new organization start in with eighteen members and a Constitution modeled after the excellent and stringent one of the Alameda Co. Society. The Code of Ethics of the National Association is adopted, which is right, and we trust the disposition will be shown, to fully carry out its provisions. It is only by carefully attending to such points that the rights of all can be secured, and refractory members, of which there are some in every organization, kept in proper subjection.

We wish for the new society every success, and cheerfully welcome it to the list of properly organized associations, which are sure to endure and prove a benefit to those engaged in them.

Miscellaneous.

Communication.

Messrs. Editors:—It is not a desirable thing that surgical operations should take place in the wards of the City and County Hospital, but on two or three occasions it has been found unavoidable in consequence of the imperfect lighting of the operating rooms. On motion to remedy the defect, at a recent meeting of the Board of Supervisors, Mayor Alvord asked with surprise if it were possible that operations had been performed in view of the patients? The question of the worthy Mayor was natural enough. No doubt his humane imagination conjured up a heart-rending scene; the horror-stricken invalids cowering like fluttered doves at the farther end of the ward, or subsiding in mortal terror under the bed-clothes. Strange to say, this is not exactly their deportment on such occasions—in fact, on the contrary, rather the reverse. With a blush for poor human nature, we have to own that they have taken quite a lively interest in the proceedings, if necks stretched to the verge of dislocation go to prove anything. To use a colloquialism that may be classical some day, they "don't scare worth a cent," but rather seem to derive a considerable amount of enjoyment from it; so much so, that it becomes a serious question whether the custom might not well be continued as a therapeutical measure, one of the excito-motor exhilarant tonics. It acts with pleasing effect on old bed-ridden cases, whom a cruel fate has placed at the other end of the ward; they suddenly find their "feet and ankle-bones receiving strength," like the man in the miracle, and gravitate towards the scene of action. As the school trustees told the teacher when he complained that his scholars threw paper wads at him, "they have to be amused," and our proposed method of furnishing amusement and recreation, has at least one potent recommendation—cheapness, that virtue which, like charity, too often covereth a multitude of sins.

It may sound cynical to say that there is a strong propensity in mankind to draw pleasure or consolation from the miseries of others; yet any one who exercises his powers of observation in the least, can see this propensity cropping out everywhere. Satirists in all ages have found in it a powerful shaft to hurl at humankind — powerful be-

cause barbed with truth. *E. g.*, the occupant of bed No. 1, may be suffering acutely from rheumatism, but he gathers ineffable relief from a glance at No. 2 with a thoracic aneurism. When No. 3 becomes despondent over his broken leg, the thought of No. 4 in the last stage of phthisis inspires him with comfort and self-gratulation. Nor need we look to the hospitals for instances. What is it that good Mesdames A., B., C. and D. have been tattling about with such intense relish these three mortal hours? Simply the ignominious downfall of Mrs. E. Is it always with unmixed displeasure, gentleman of our honorable profession, that you hear Dr. This or That's name held up to unutterable censure or ridicule?

"Half ape, half tiger," was Mrs. Mary Wortley Montague's definition of the "Red" Parisian (a sort of developed Hoodlum), and the application of this biting satire need not be limited to a Robespierre or a Petroleuse. My Lord Tomnoddy, who pays his guinea for a seat in front of Newgate gallows, the throng frantically crowding for a glimpse of Mrs. Blank, who has just severed her jugular, the boy gazing through a knot-hole at the arcana of the slaughter-yard, the eager multitudes in the Roman ampitheatre, quick to cry "*Habet!*" and upturn their thumbs, the often purposeless ferocity of conquerors as they "wade through slaughter to a throne," the hospital valetudinarian following the surgeon's knife with the attentive gaze of a connoisseur—all seems to show that there is more of the tigerish element, the fascination for blood, lurking in our nature, than we are willing to admit. As Addison would have said had he been a Darwinist:

"'Tis the felinity that stirs within us."

"Our minds, as well as our bodies, show the relic of a tail," says Winwood Reade—is it that of ape or tiger in your case, dear fellow-biped? M.

San Francisco, March 9, 1873.

Carious Teeth.

M. Magitot recommends the following formula: Chloroform, 5, laudanum, 2, and tinct. benzoin, 10 parts. Cotton wool dipped in this to be inserted in the cavity, and renewed until insensibility of the part is produced, when the cavity may be definitely obdurated.—*Rev. Med.*

Stings of Bees and Wasps.

Inject into the puncture a solution of carbolic acid. The pain will instantly cease.

Herpes Zoster Treated by Electricity.

Dr. Picot (Gaz. de Hôp., 1870, No. 96), speaks of a lady, *æt.* 45, who for a week had suffered from severe pains in the left side of the chest, which deprived her of sleep; and then was followed by an eruption of little postules, which dried up in fifteen days, but returned in five weeks. Dr. Picot, of Tours, made the diagnosis of intercostal neuralgia, and thought of applying a continuous current obtained from an apparatus of Remak. The positive pole was run along the spines of the cervical vertebræ, and the negative pole applied along the course of the affected nerves for ten minutes each nerve. This effected a cure, and the eruption and pain disappeared.—*Doctor.*

Whitlow—Carbolic Acid.

After freely slitting up the parts and giving vent to the matter and sanious discharge, use a solution of carbolic acid freely. The wound will rapidly assume a healthy character.—*Southern Medical Record.*

Preserving Vaccine Virus.

Dr. D. B. Hillis (*American Journal of Dental Science,* from the *Pharmacist*), recommends the preservation of vaccine virus between the layers of dental red rubber, and says that, for several years past, he has used no new matter, but has, for the sake of experiment, drawn from the stock originally put up as described. He has always found it effective without paying any regard to temperature. A short time ago he successfully vaccinated a patient from a crust which had been laying about his office twenty-seven months.—*Philadelphia Medical Times.*

Cancer.

The most recent views of the nature of cancer are, that it is not a constitutional disease at all at first, but purely local, and that, by subsequent absorption of its elements, the system becomes affected. It may be said to be hereditary, in the same way as a tendency to any other affections (as warts) is hereditary. The use of caustics after the removal of the mass of the tumor by the knife is coming more and more into favor. Chloride of zinc is especially suitable. *Braithwaite's Retrospect.*

MONTHLY REPORT OF DEATHS IN THE CITY OF SAN FRAN-

By C. M. BATES, M.D., Health Officer. *No. of Deaths corresponding Month*

CAUSE OF DEATH.	Total	AGES.																	SEX.	
		Under 1	1 to 2	2 to 5	5 to 10	10 to 15	15 to 20	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90	90 to 100	Over 100	Unknown	Male	Female
I. ZYMOTIC.																				
Measles	3	3																	3	
Scarlatina	4	2		1	1														1	3
Croup	3		1	2															2	1
Whooping Cough	5	3	1	1															3	2
Fever, Enteric or Typhoid	10	2	1	1			1	2	2	1									4	6
Erysipelas	2									1			1						2	
Cerebro-spinal Meningitis	4				3			1											4	
Other diseases of this class	8	2	1	1	1			1		2									4	4
II. CONSTITUTIONAL.																				
Cancer of Womb	1								1											1
Cancer of Stomach	2								1		1								2	
Other diseases of this class	3										1	2							2	1
III. TUBERCULAR.																				
Phthisis Pulmonalis	41	1					3	9	15	11	1	1							27	14
Hydrocephalus	5	3	1			1													2	3
Other diseases of this class	2		1	1															2	
IV. LOCAL.																				
Congestion of Brain	3	1		1							1								1	2
Meningitis	14	6	3	2	3														5	9
Cerebritis	2				1				1										1	1
Apoplexy	6			1				1	1	2	1								5	1
Tetanus	2							1			1								2	
Other diseases of this class	7		1				1	2		2		1							5	2
V. CIRCULATORY SYSTEM.																				
Carditis	2									1	1									2
Aneurism of the Aorta	4							1	1	1	1								4	
Hypertrophy of the Heart	6									2	3								3	2
Dropsy	2		1										1							2
Heart Disease, undefined	8	1				1	1		1	1	2	1							6	2
Other diseases of this class	5								2	2		1							5	
VI. RESPIRATORY SYSTEM.																				
Laryngitis	2	1			1														1	1
Bronchitis—Acute	5	1	2	1									1						2	3
Pleurisy	2							1					1						2	
Congestion of the Lungs	4	2	1							1									1	5
Pneumonia	19	2	2	4				2	2	1	1	3	2						14	5
Other-diseases of this class	5			1						2	1	1							4	1
VII. DIGESTIVE SYSTEM.																				
Enteritis	5		1							2	1		1						2	3
Peritonitis	5	2						1	1	1									3	2
Intussusception	2				1				1										1	1
Hepatitis	2							2											2	
Liver Cirrhosis	2										1	1							2	
Other diseases of this class	7						1	1	1	1	2								3	3
VIII. URINARY SYSTEM.																				
Kidney Disease	3								1	3									4	
IX. DEVELOPMENTAL.—CHILDREN.																				
Premature Birth	8	4																	2	2
Convulsions.—Infantile	4	8	4	1															4	4
X. OLD AGE	2											1	1						1	1
XI. NUTRITION.																				
Delirium Tremens	3								1	2									2	1
Inanition	17	14						2		1									9	8
XII. ACCIDENTAL	2								1		1								2	
XIII. MURDER AND MANSLAUGHTER	3									2	1								3	
XIV. SUICIDE	1									1									1	
XV. SYPHILIS	1									1									1	
XVI. NOT SPECIFIED OR ILL DEFINED.	2										1		1						1	1
XVII. UNKNOWN	35	1	1	2			2	14	6	5	2	1						1	29	6
Frostbitten in Idaho	1									1									1	
TOTALS	296	55	22	20	11	2	9	41	39	50	24	14	8					1	193	103
XVIII. STILL BORN																			6	6
XIX. BIRTHS REPORTED																				

CISCO, CALIFORNIA, FOR THE MONTH OF FEBRUARY, 1873.

of 1866, 242; 1867, 217; 1868, 334; 1869, 270; 1870, 309; 1871, 300; 1872, 254.

RACE.			WARD.																NATIVITIES.			
Caucasian	Mongolian	African	1st Ward	2d Ward	3d Ward	4th Ward	5th Ward	6th Ward	7th Ward	8th Ward	9th Ward	10th Ward	11th Ward	12th Ward	Public Institutions	Casualties	Suicides	F'gn C'ntr's	Atlantic U.S	Pacific U. S.	Un'cert'ned
3			1	1											1					3	
4				1											3					4	
3				1							1		1						1	2	
5												3	2							5	
10				1					1	2	1	1	4					4	1	5	
2				1								1						1	1		
4			1	1								1			1			1		3	
8										2		2		2	2			1	2	5	
1														1				1			
2					1								1					1	1		
3				1						1					1			2	1		
40	1		1		1	5		1	1	4	2	8	6	2	10			22	17	2	
5			1		1	1					1		1							5	
2													1	1						2	
3										1	1				1			1		2	
14			2			1				1	2	5	2	1				1		13	
2				1											1			1		1	
6			1							1		1	3					4	1	1	
1	1						1							1				1			1
6		1				2			1	1			1		2			4	2	1	
2										1	1							1	1		
3		1								1			1		2			3	1		
5												1		1	3			4	1		
2												1			1			1		1	
7		1	1	1					1	2				1	2			4	2	2	
5												3			2			3	1		1
2				1										1						2	
5				2		1					2							1		4	
2							1								1			1	1		
4				2										1	1			1		3	
17		2		3		2			1		1		2	6	4			8	3	8	
5				2				2	1									2	2	1	
5				1					1			1	1		2			2	2	1	
5				1					1				2		1			2	1	2	
2				1									1					1	1		
2					1									1				2			
2									1						1			1	1		
6				2								2			2			4	1	1	
4								1						1	2			3	1		
4				2				1				1								4	
8			2	1					1			2	2							8	
1	1											1			1			2			
3						1				1					1			3			
17				2		2			1			2	4		9			3		14	
2																2		1			1
2	1															3		3			
1																	1	1			
1			1															1			
2								1				1						2			
3	32		2	2		19	1	8		1			2					30		4	
1			1															1			
366	36	5	14	62	4	34	3	14	10	18	15	35	87	28	54	5	1	136	46	110	4
12																					
18																					

Book Reviews.

OBSTETRIC APHORISMS FOR THE USE OF STUDENTS COMMENCING MIDWIFERY PRACTICE. By JOS. G. SWAYNE, M.D., Physician Accoucheur to the Bristol General Hospital. Second American from the fifth revised English edition, with additions by EDW. R. HUTCHINS, M.D., pp. 189. Illustrated. Philadelphia: H. C. Lea. San Francisco: A. Roman & Co.

On first seeing this little work we were prepared to condemn it, together with all books pretending to be pocket catechisms, prepared for ready reference in times of need. We would far prefer to have "students commencing midwifery (or any other) practice" thoroughly grounded in their specialty, and not obliged at first emergency to pull a book from the pocket and see what to do next, provided the patient lives long enough. Now that we have carefully read the book we can only regret that the author and editor did not continue to write far more of the same good advice that makes every page so entertaining. No attempt is made at pathology or anatomy, the student being supposed to be grounded in those branches. The effort is to show the student what he can safely attempt and to guide him in it, what he should not attempt and when to send for assistance. We are pleased at the eminently practical and cautious suggestions given, and above all, at the reiterated assertion, that nature is generally best satisfied when not meddled with; that every case of labor does not require the exhibition of the accoucheur's dexterity in applying forceps, and that ergot properly used may be better in the majority of cases than the interference of a man whose ideas of the necessity of the case may be influenced by his haste to get to his dinner, or his desire to impress the by-standers with astonishment at his readiness in handling instruments. It is a book to recommend to practitioners, as well as students, in a section where the go-ahead-ativeness of the American people will not allow of waiting for nature to take its course. The chapter on the management of the newly born

is also valuable, and we would wish it extensively read by nurses as well as doctors who are in the habit of cramming a baby's stomach with sugar and water, gin and sugar and other abominations, when the mother's breast is ready to supply all requirements, to the comfort of the child and ease of the mother.

We commend the perusal of this book to, all and would prefer to see the students in many of our medical schools use its chapters as authority on the subjects referred to, than apply the teachings of their own Professors of Obstetrics.

The "*Annual Report of the Surgeon-General of the Navy*" is received. After rehearsing the condition of the Hospital and Pension funds, and making the yearly complaint that Congress does not properly provide for our Naval Hospitals, the Chief "implores, for the sake of our sick and wounded in the line of duty, some increased facilities for purely naval education in our medical officers." This is the first strong appeal that we have seen on the part of the Naval Medical Bureau for especial training for its officers. We fully endorse the plan believing, as we have for a long time, that we should have a National Medical School, officered from the two services, in which to prepare candidates for the services and to afford the best facilities for officers to pursue their studies while awaiting promotion. Such a school should require a rigid examination on entering, and a still more severe one on graduating, in order to secure for each corps the greatest amount of professional acquirements. It is well known now that the examinations for entering either branch of the military arm, are far more strict than are required for getting a diploma in this country, as is proved by the fact that of all graduates appearing for examination, on an average, only *one* in *four* succeed in getting accepted; but when once in, the certainty of a steady salary, though not large, the comparatively small number of sick in times of peace, and the habits of idle-

ness almost sure to be encouraged on remote stations or tedious cruises, all tend to make a man "rusty," and to require of necessity that he must have a firm foundation of knowledge and a grounding in first principles which endure in case the lighter superstructure be damaged.

We trust that this among other signs of life, in a Bureau weighted for so many years with old fogyism, red-tape, parsimony and incapacity on the part of its chiefs, will receive the attention the subject demands.

Detailed reports are given from Naval Hospitals, Navy Yards, Receiving Ships and Sea-Cruisers; these all consolidate briefly as follows:

"Percentage of Cases to number of Persons on Board.

Receiving Ships	.06
Vessels in Commission	.09

Percentage of Deaths to number of Persons on Board.

Receiving Ships	.001
Vessels in Commission	.007

Percentage of Deaths to number of Persons Treated.

Hospitals	.03
Navy Yards	.004
Receiving Ships	.003
Vessels in Commission	.008
Total No. of Treated in 1871	14,704
Total No. Died in 1871	135
Percentage of Deaths to number of Persons Treated	.009"

The report closes with estimates for the coming fiscal year. The sum total required, while immense compared with what it was under the old *regime*, is pitiably small, and shows that a very economical (to call it by no harsher name) spirit still pervades the Bureau. The total required is $196, 868! Why not make it a round $200,000 and give the sick some luxuries? Congress would award the odd $3,000 many times over to politicians fighting over Seats in the House! On the whole, we are pleased with the report and rejoice to see the Bureau was strong.

MEDULLARY SARCOMA.—Front View.

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MEDULLARY SARCOMA.—Back View.

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THE

WESTERN LANCET:

A JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

FOR APRIL, 1873.

Surgery.

ART. I.—*Amputation at the Thigh for a Medullary Sarcoma of the Leg Simulating Aneurism; Recovery.* CHARLES B. BRIGHAM, M. D., San Francisco. (With Photograph.)

J. B. C. *æt.* 44 m. In the winter of 1867 the patient, a man of light complexion, previously in good health, was seized one morning with a violent pain in the left kidney; in passing his urine it was found to be red with blood; the attack lasted a few days, there being great difficulty in passing his water owing to clots of blood which blocked up the urethra; six weeks after this he had another similar hemorrhage, and was obliged to remain in bed for more than a month; the pulse was at 120 during most of the time, and for three days it seemed doubtful if the hemorrhage could be controlled. The attending physician had ordered whisky *ad libitum,* and finally resorted to a dose of ten drops of turpentine spirits three times a day; the patient remarked that little sacs of skin-like substance constantly came from the bladder with the urine, and pus was passed for several weeks afterward. In October, 1871, the patient felt a sudden pain in the calf of the right leg, and at the base of the great toe of the same side; in a few weeks after

the leg swelled considerably at the ankle, and, it gradually increasing, he was advised to bathe his leg in hot sulphur baths, which advice he followed, and his leg became much worse. In the following winter he was taken with another slight hemorrhage from the kidneys; once a trocar was thrust into the leg and only blood presented itself. In October, 1872, the patient was confined to his room, and soon after to his bed, where he remained until the fifteenth of March, when I saw him for the first time. The leg then presented the following appearance: A large tumor occupied the entire calf, extending to the ankle below, and to the popliteal space above; it measured eighteen inches in circumferance, by ten in length; the superficial veins of the leg were enlarged and much injected; the leg was hot and painful, and it was impossible to put it to the ground on account of the immediate congestion which followed; so hot was the patient's body that little if any bed clothes could be supported; his pulse was at 100, his temperature 38°; the body and limbs were so emaciated that the left thigh measured but nine inches in circumference at its lower third; while the leg of the corresponding side measured only nine and one-half inches in circumference over the head of the tibia, and but six inches at the ankle; the arms were in like manner much emaciated, and measured six and one quarter inches in circumference, while the forearms at the widest part measured but seven inches; the patient's appetite was excellent but capricious, and his digestion easy and rapid; the tongue had been for a long time coated on either side of the median line; the glands in the groins were slightly enlarged, particularly on the right side, so was also the spleen; throughout the body the superficial veins were triple their usual size; a slight chronic bronchitis annoyed the patient but little, and there was no evidence of any lung disease; a distinct pulsation was felt by the hand along the tumor on the outer side of the leg; on the inner side, on two places corresponding to two lobes of the tumor, the same pulsation, synchronous with the pulse and producing a distinct *bruit* and purring sound, was felt by the hand and heard through the stethoscope. My first impression at the sight

of the tumor was that it was a medullary sarcoma, but on further examination, taking into consideration the length of time of its existence, the suddenness of its first appearance, the fluctuation in two distinct parts with pulsation synchronous with the pulse, and the aneurismal *bruit*, I concluded that it was a varicose aneurism originating in the posterior tibial artery, full of clots, and by its pressure disorganizing the tissue of the leg. I was likewise informed just before the operation, by one of the four gentlemen in consultation, that the diagnosis of aneurism was agreed upon also by them. The operation of amputation of the leg at the lower third of the thigh was decided upon, and on the twenty-second of March, 1873, the patient being etherized and the tourniquet applied, the operation was performed by the circular method, making a cone of muscles toward the bone as an apex. The internal saphenous vein gave a free gush of blood at the outset, and a ligature was placed upon it, as well as upon the femoral artery, before sawing the bone. The thigh was amputated at the lower third; twelve silk ligatures were placed and eight silver sutures approximated the edges of the wound, leaving an opening of an inch and a half on the inner side through which passed a short drainage tube of india rubber, and the ligatures of the arteries; the tube had previously been soaked in a mixture of carbolic acid and glycerine (one part to ten). In the dressing of the stump Lister's method was followed as closely as possible. The wound was washed with a solution of carbolic acid and water (1 part to 40), a cotton bandage having been placed for a short distance around the thigh so as to make a firm, even pressure, a wide band of Lister's antiseptic gauze* was then wrapped around the limb in several layers, in such a manner as to leave the edge of the wound alone uncovered to the air. A small compress soaked in the carbolic-glycerine mixture was

*"Made by impregnating a cotton cloth of open texture with a mixture of carbolic acid (1 pt.), resin (5 pts.) and paraffine (2 pts.); the gauze is very readily prepared by passing the cloth in several layers between a pair of rollers, after dipping into a steam heated trough containing the mixture." Joseph Lister, Holmes System of Surgery, Vol. 5, p. 623.

wrung out nearly dry and then placed over the line of the incision, and over this a square bit of gauze; the end of the rubber tube was enclosed in this last piece of gauze, the stump was then surrounded by a layer of cotton which had been previously impregnated with the vapor of carbolic acid. An attempt was made to perform the operation in a spray of carbolic acid water, but the ill working of the instrument prevented. The patient had a speedy return to consciousness. In the afternoon a slight intermediary hemorrhage occurred, and three of the silver sutures were cut, the wound was partially re-opened, and a small arterial branch tied. The immediate shock from the amputation was but slight; the pulse was at 94 and the temperature at 36°.5, six hours after the operation. The patient slept much of the night, the pain being allayed by ¼ grain of the hydrochlorate of morphia. He woke up in excellent spirits and with a good appetite. P. 96, T. 37–5.

March 24. The stump was dressed to-day under a cloud of spray of carbolized water. The patient's mouth feels a little dry; the pulse and temperature remain the same as yesterday.

March 25. The stump twinges at intervals; the patient's tongue is rapidly clearing on the right side; P. 100, T. 37; forty grains of bromide of potash were given at night, in addition to the injection of morphia.

March 26. No discharge from the stump as yet. The patient is a little more restless; P. 92, T. 37.

March 27. The tube was gently withdrawn; the patient is fed on beef tea, eggs and toast, together with milk and arrow root. P. 102, T. 36-5; the patient quite restless towards eve.

March 28. The stump is to-day surrounded by a thin bloody serum; P. 102, T. 37; the patient complains of occasional twinges in the lost foot and knee.

March 29. The stump is discharging freely a thick bloody serum. The patient feels decidedly better; P. 98, T. 37-5.

March 30. The dressing was entirely changed to-day; a chocolate colored pus to-day enveloped the open surface

of the wound; the ligatures still hold firm, as do also the sutures; more than half the line of incision is united by first intention; there is no odor from the wound; the flaps are in excellent condition; the antiseptic dressing was reapplied under a cloud of spray; the patient lifts himself up by his elbows in bed. P. 96, T. 37-5.

March 31. T. 38, P. 100; the patient passed a greenish-looking stool, and does not seem quite as well to-day; in the evening there was evident improvement; the pulse was at 96, temperature 36-5.

April 1. The stump was again dressed to-day; the patient has a restless, anxious look; the suppuration continues to be of the same color and consistency.

April 2. P. 96, T. 37. The patient has regained his appetite; the leg twinges constantly; the suppuration is diminishing; the patient sat up in bed for some time to-day; he is taking three teaspoonsful a day of wine of quinine and iron.

April 3. P. 96, T. 37; doing well.

April 4. The stump was dressed again to-day; the ligatures are still firm; the sides of the wound have approached each other perceptibly since the last dressing. P. 88, T. 36-5.

April 5. The patient was taken with a slight diarrhæa to-day, and complains of a constriction in the chest; two small Albespeyreo's blisters were applied between the nipples, and were followed by great relief; P. 100, T. 37-5.

April 6. P. 96, T. 37-5; no change in the dressing.

April 7. Five wire sutures were removed. Ale was ordered to-day as a day drink; appetite very good; the pulse and temperature remain as yesterday.

April 8. P. 100, T. 38. On the following day one ligature came away; the patient's arms, leg and back are now washed daily with soap and water, and then rubbed with bay rum; the dry epidermis falls in quantities from his body and limbs; the temperature of the well leg, which, before the operation was very low, is now equal with that of the rest of the body. As beer did not seem to agree with him, it was suspended.

On the 12th of April the patient sat up in a chair during half an hour; the leg twinges at intervals throughout the day; the suppuration continued to be of a chocolate color until the 17th, when it became of a healthy yellow; the swelling of the spleen has considerably abated, and the veins throughout the body have diminished in size; the patient's back is evidently becoming more fleshy; the pulse and temperature at the present time (April 19) are almost without variation at 93 and 37° respectively. The lower third of the left thigh has increased in circumference a half an inch; the wound measures one inch by one half, and the edges are approximating daily; five ligatures still remain attached to the arteries. The patient still has a little anxious look. After sitting up for a few hours the foot and scrotum become a little swollen, owing to the change in position; twice, about a week ago, the stools were tinged with blood, and the urine a few days afterward smarted a little and was high colored, with considerable sediment; but all this trouble passed away without interference, and the patient finds himself, a month after the operation, much stronger and better than before, and with every prospect of a speedy recovery.

On examining the tumor after the operation, it was found to be lobulated, and of ovoid form ; situated in the ham of the right leg behind the tibia, it measured seventeen inches in circumference and ten inches and a half in length ; it had enclosed and destroyed the fibula within a distance of five inches from the external malleolus, while at its upper extremity but two and a half inches remained attached to the condyle of the tibia, of which latter bone nothing but a shell was left, prevented from breaking only by the support afforded by the tumor. On the inner border of the tibia are to be seen two flattened lobes, appearing at first sight as independent tumors, but connected deeply at their bases with the main mass ; the upper of these lobes measured three inches in length by one and a half in width ; and, creeping over the edge of the bone, it had gnawed away a little of its anterior surface. The lower lobe was an inch below the upper ; it measured four inches in length by one and a half in width. It had also destroyed the surface of the tibia

wherever it rested upon it. These two lobes gave the deceptive fluctuation felt in the tumor before the operation. On the outer border of the tibia, the tibialis anticus, the extensor longus pollicis, and the extensor communis digitorum longus muscles were separated from the peronei brevis and tertius by three principal lobes of the main tumor on the inner border of the tibia; the tumor, covered with enlarged veins, bulged out between the tendons of the flexor longus digitorum, the tibialis posticus, and the inner belly of the gastrocnemius. In substance, the tumor resembled a decomposed brain; it was of soft consistency, and of a similar light gray color. When a section of the tumor was made, but a few hours sufficed to destroy the surface of either side of the cut. On the upper and anterior part of the upper external lobe of the tumor, a small, yellow tuberculous looking mass was found; a thin layer of connective tissue stretched itself tensely over the tumor and its lobes; it was traversed by many swollen blood-vessels. Within the substance of the tumor, an infinite number of arteries and veins were seen; an injection sent through the popliteal artery came out by the popliteal vein at its side, showing the intimate connection of the two sets of vessels. The popliteal vein measured over two thirds of an inch in diameter. The "cancer juice" was abundant upon the cut surface of the tumor. By the microscope was seen a disorderly collection of small ovoid and pyriform cells, having one or two prolongations from what seemed to be the body of the cell. They contained one or sometimes two nuclei, which were surrounded by small nucleoli. Not one of these cells were fusiform, and hardly two could be found alike; as they rolled beside each other, they were seen to be of considerable thickness.

Whether we call this tumor medullary sarcoma or encephaloid, it does not alter the fact of its malignancy. Paget describes two kinds of it, the soft and the hard; but as medullary sarcoma softens as it progresses, we find the two forms at different periods in one and the same tumor. It occurs oftenest in those of light complexion and in the young. While half of the scirrhous tumors occur between the ages of forty and fifty, but one sixth of medullary tu-

mors occurs at this time of life. Their quick growth shows that the system is well supplied with the appropriate materials. They have less infectious power than the scirrhous tumors. As a general rule, the richer the tumor in cells and cellules, the more malignant it is. The enlargement of the superficial veins throughout the system was doubtless due to the pressure upon the deep ones, they having extra work to do in the return current of the blood. The blood-vessels in a medullary sarcoma are not altogether the enlarged vessels of the normal tissue, but are peculiar to the tumor itself; they have a single thin wall, and anastomose freely with each other.

Broca thus describes the alterations which the veins of the normal tissue which traverse the sarcomatus substance undergo:

"When they are small they are easily obliterated, but if they are voluminous, their ulcerating walls may give passage to the cancerous matter, and this, after having made a hernia in the vessel, pushes a fungoid prolongation, which grows in the direction of the flow of the blood and bathes itself freely in this liquid. The result is, that the juices furnished by the cancer, the cellules and the germs, and even fragments of cancerous tissue, may be dragged into the torrent of the circulation."

The diagnosis between an aneurism and a pulsating tumor is often impossible; it is seldom that an aneurismal tumor pulsates in every part of its sac, and although the usual pulsation is like a wave, swelling and subsiding, yet when the tissue which covers the sac is dense and unyielding, no such condition of things obtains. In the tumor under consideration, as the pulsation and *bruit* extended along the whole outer side of the leg and below the inner condyle of the tibia in two distinct places with fluctuation, it might easily be supposed that an aneurism of the posterior tibial artery existed, the superficial muscles, and above all, the strong fascia which cover the artery, forming a sufficient barrier to prevent the direct progress of the sac toward the surface. The age of the patient would naturally have some influence in the diagnosis of this form of sarcoma. As a general rule, a tumor may be dragged away from a vessel, but not so with an aneurism; yet again, if the tumor is

deeply seated, the surrounding tissues prevent its being moved out of place. Out of five cases where the common iliac was tied for supposed aneurism, in three of them the disease proved to be malignant; and how many cases are recorded where aneurisms have been opened with the knife by mistaking them for abscesses or cancers! Aneurism of the posterior tibial artery is a rare disease, while medullary sarcoma of the leg is only uncommon. The general rule of taking the rarer disease in a doubtful diagnosis, is an excellent one, but certainly did not hold good in this case.

We cannot give a very favorable prognosis to our patient. The disease has had such an influence over him and affected the system to such a degree; were the amputation performed in the first months of the disease, the recurrence of the tumor would have been far less likely. The patient has good courage, and in general a quick and easy digestion. He has the violent, wearing pain from his leg wholly removed and is now making a quick recovery from the amputation. Lasting recoveries under similar circumstances have been recorded. Pirogoff mentions one where the cure was spontaneous. There is a specimen in wax of the same kind of tumor occurring in a woman's leg, in the museum of the Middlesex Hospital in London. The leg was amputated above the knee, and the tumor returning in the stump, another amputation was practised at the upper third of the thigh. The patient recovered and has been in perfect health during the seven years which have elapsed since the operation. Of these tumors, Virchow, in his "Pathology of Tumors," says:

"All medullary sarcomas are very suspicious; when one is extirpated, a doubtful prognosis is always given. It is only when the tumor is quite recent and wholly localized, such ones, above all, as are found implicating the bones, that a sure cure can be effected by an operation made early."

In regard to our patient, the following questions arise: Has the disease lost its local identity and become constitutional? or has the force of the disease been spent upon this one part of the system, which part being removed, the rest is sound and healthy? or was it constitutional from the outset? It will be interesting to see how time brings us an answer.

ART. II.—*San Rafael Clinique. A Case of Oedema Glottidis, intercurrent to Parotitis.*

February 4th. Called at four in the morning to see Mr. A. *æt.* 34. It was probably fifteen minutes from the time that the messenger left him to that of my arrival at the bedslde; but he was found dead; not the least sign of life could be discovered, though carefully searched for. On introducing the finger along the tongue to the epiglottis, a large, bleb-like swelling could be felt, filling up the whole of the glottis. On removing the larynx, which I obtained permission to do, three good sized blebs filled with serum were found, one on either side of the glottis, while the third arose from its posterior half. The three formed a complete valve, and in appearance not unlike the semilunar valves of the aorta when strongly closed. No sign of inflammation could be detected in the pharynx, though a slight redness and a softened condition of the mucous membrane of the vocal cords was observed, and the same of the larynx generally. The parotids were both found greatly enlarged. I ascertained that the deceased had been much addicted to drink; that for three or four days previously he had suffered from mumps, and that within only two days of his death he had complained of his throat, but that his voice was only noticed as husky the day previous. He died without a struggle, within from five to ten minutes before my arrival. The œdema must have come on with great rapidity, and the occlusion, once having taken place so completely, the consequence was almost immediate death.

I have never met with a case in which the œdema proved so quickly fatal, but in 1861 I was called to a case in consultation, in which the œdema came on during an attack of superficial erysipelas, extending over the whole body, and where the sufferings of the patient, notwithstanding scarification of the glottis, were horrible to behold. My proposal to open the trachea was for some time declined by the attending physician, owing to his belief that the œdema, being directly the result of the erysipelas, it would only prolong, without being the means of saving, life. Only when the patient was moribund was I desired to operate; but before the instruments could be brought from an adjoining room, the jaw had fallen, and apparent death had taken place.

I have always blamed myself for not proceeding with the operation in this case, more especially after a somewhat similar case, narrated to me by Dr. Gurdon Buck, of New York, and which I believe has not been published.

Being called to a case of œdema, where he had used scarification a short time previously, he found the man—an Irishman—living in a small cabin, where is now the Central Park, apparently in dissolution, and before he could make the incision into the trachea, the jaw had fallen. He, however, proceeded, and after removing a quantity of blood, which had entered the trachea from the mouth, he had the satisfaction of seeing the eyes open and consciousness return. Surrounded by wild Irish laborers, leaning over his patient, stretched on the floor, sucking the blood from the trachea, by the light of a single "dip" candle, the scene must have had much of the weird look of some of Rembrandt's pictures.

In the case here reported, I think there can be no doubt that if I had arrived during, or just after the time apparent death had taken place, *provided* the heart was still beating, I should have been able to save life by instant incision.

Institutes and Practice of Medicine.

ART. III.—*Alcohol as Food.* Read before the Lycoming County (Pa.) Medical Society, October 1, 1872. By THOS. J. MAYS, M. D.

There is, perhaps, no other substance in the whole list of the *materia medica* which has received greater and more unjust abuse, not alone by a certain mass of the populace, but by unscientific professional men, than the article which forms the basis of these remarks.

No one will deny that its abuse is not infinitely a great moral and physical wrong; but, as long as it is abused, the true value of this most efficient substance will not be developed.

Every stimulant of which we have a knowledge is, in large doses, a poison; and here we might draw a great moral lesson, that the evil is always so closely associated with the good.

The more potent and valuable a substance, the more fearful are the results of its abuses.

Admitting, then, that alcohol is a great evil if used improperly, yet, that is no evidence that it is not one of the most valuable articles of diet which we have at our command, if used properly.

In the common acceptation of the term *stimulant*, it is implied that a physical agent may produce, at once, and without improved cerebral nutrition, an exaltation of the mental activity.

The term *stimulus* literally means to *goad*, prick, or spur, but even this is only a figurative and very imperfect mode of expressing therapeutical and physiological stimulation, and in this paper I shall not employ the word *stimulus* to signify the impulse to act alone, but also to supply the materials necessary for action. It is merely a physiological impossibility to suppose that an agent can come in contact with the tissue of the body and produce an exalted, stimulated activity, without having an inherent property to increase the nutrition of the part at the same time.

Stimulation, excitability, irritability, etc., refer to the residence in the tissues of the body of some essence which, not exactly mind, possesses at least passions, emotions, and volitions, to which stimulants, excitants, and irritants appeal; and there can be no doubt that it were vastly better for the medical profession if those terms were altogether swept from the medical vocabulary. If, however, these words are still to be retained in usage, we must, at least, seek for some new definition and limitation of their meaning; for it is unwise to speak as if we still believed that demons were residing in our stomachs, nerves, or ultimate cells, whom we could soothe with cordials or anodynes, excite with stimulants, or inflame into active wrath by irritants.

If we could shake ourselves free of the old hypotheses of vital action, we should be far better prepared to realize the true character of mind, not, as we occasionally see, in language which would almost imply that intellect was a secretion of the brain, but that it is changeless, eternal, unconfined by time or space. It is quite customary, in describing the action of inebriants or narcotics, to speak of these agents as "stimulating the mental powers," while there is *no* stimulation, but the reverse.

All that we know is, that the material part of man's brain should be placed in that state of nutrition which represents material health, and when this has been done, it affords to the mind the best opportunity to act rightly.

Healthy vital action consists in balancing the tissues of the body between two antagonizing forces—the different tissue-currents of electricity, heat, etc., and the physical properties of the tissues.

Muscular contraction may be strongly suspected of depending altogether upon the physical properties of the tissues in which they are developed, and that true vitality would rather act in restraining than exciting it. It is a fact that the most steady and persistent contraction which can possibly develop in muscle is that which sets in after death, and which does not appear until the last vestige of life has disappeared. The researches of Dr. Harley make it very probable that strychnia acts by preventing the oxygenation of the blood, in which case it cannot be supposed that it gives increased force to the nerves, but rather that it reduces the muscles to a condition in which they obey the laws of inorganic matter. This molecular action must be maintained at a certain uniform standard, which condition constitutes perfect, absolute health ; variation from this, either above or below, is disease.

In certain diseased conditions of the body, as in inflammations, hypertrophies, etc., there is an increased, while in atrophy or degeneration, a decreased molecular action.

In order to sustain this uniform, healthy, vibratory action, there must be a constant application and assimilation of fuel, which will distribute its force to every living germ in the body, and so maintain the healthy characteristics of life.

It would be absurd for any one to suppose that he can *goad* a poor debilitated brain up to its healthy standard, with a physical agent that is not able to furnish the materials which are so essential for its well-being and normal action.

Foods and stimulants in the proper sense of the term act precisely alike physiologically and therapeutically, with this difference, that the former are more permanent in their effects than the latter. They both promote *nutrition* of the tissues, they both furnish materials for the development of animal heat, and both form elements for excretion.

The only action which physical agents have upon the mind, of which we are aware, is that which they exercise indirectly by changing the condition of the brain, making

the latter more or less efficient as an instrument of the mind. In the common acceptation of the term "alcoholic intoxication," it is supposed that the brain is over-stimulated or irritated, at first sight resembling excitement; but on closer examination we shall see that it is the reverse. It is a certainty that a natural opposition exists between the reason and the will on one hand, and the emotions and appetites on the other.

The symptoms of alcoholic inebriation clearly show that it is the emotional and appetitive part of the mind which is in action, while the intellect, on the contrary, is directly enfeebled. There is no exception to this rule, that in proportion to the degree in which the lower and more animal nature preponderates in the actions and words of a drunken person, the less of intellectual activity does he display. Alcohol, in doses large enough to produce intoxication, paralyzes the will and reason, and gives almost universal sway to the appetites and animal propensities; but it is not in doses so large that we derive the pure beneficial and stimulating effects of alcohol, and it is only within the scope of the present paper to write of alcohol as a food or stimulant, and not as a narcotic.

Food is any thing that sustains life. Nearly all ordinary food, when taken into the body, is broken up, undergoes a chemical change, develops tissue and useful force.

In the year 1860, Messrs. Perrin and Lallemand published a paper, in which they held that all the alcohol taken is eliminated again unaltered, prior to which time it was the generally received opinion that the greater portion of alcohol taken was oxidized in the system, and only a small fraction eliminated unaltered. This opinion was soon very generally adopted, notwithstanding the fact that these investigators never could recover from the excretions more than a very small part of the alcohol taken, although it had been given in doses very large and frequently repeated; but this was easily accounted for as unavoidable loss. Since then, however, the investigations of Drs. Anste, Dupre, and Bence Jones, have satisfactorily proved that alcohol, when taken into the system in small doses, acts similarly to other ordinary food, is broken up chemically, and gives rise to useful force. If it should be presumed that all food is transformed in the body, and that this is not the case with alcohol, then would not this be the worst definition that could be given to food? for water, which is not transformed at all, is after all the most necessary element of nutrition.

If, however, alcohol can act, as some suppose, by remaining unchanged in the system, like water, and supporting

the system by a kind of anti-waste action, then it ought to be true also that it can be found in the excretions in like quantities in which it was taken, which is the case with water; but, unfortunately for their theory, this is not true, for all the alcohol that is taken in purely dietetic doses, is oxidized in the system, and cannot be traced in the excretions as such.

There is no more certain proof of the alimentary character of alcohol than may be obtained by looking around us in acute diseases, where, during many days of abstinence from common food, it has repeatedly supported life; and Dr. Anstie, in his researches, clearly proves that persons have supported themselves almost solely on alcohol and inconconsiderable quantities of water for years.

The support of the organism by alcohol and other stimulants is one of the most remarkable phenomena which can be offered to the attention of the scientific medical world.

It has been somewhat hastily assumed that, inasmuch as nearly all stimulants in large doses will also act as narcotics, the only way in which they can act as food is by the arrest of vital changes. The men who hold such a view believe, with Lallemand and Perrin, that alcohol does not undergo a chemical change in the body, and, as soon as it comes in contact with the tissues, it coagulates the albuminoid substances, and in this way it supports, or rather preserves life. They say, place any dead tissue of the body in alcohol and it will keep it from decomposition for any length of time, without taking into consideration the fact that, when alcohol comes in contact with the walls of the stomach, it does not meet dead matter, but a live membrane fortified strongly with its digestive fluids. As soon as alcohol in purely stimulating doses is taken into the stomach, it meets the digestive fluids, is digested and disposed of like any other food, and goes to form tissue and animal heat instead of retarding the formation of tissue and arresting the metamorphosis of the body. Observations are entirely wanting as to the rapidity of tissue-change in the extraordinary instances in which life has been preserved in the absence of ordinary food, by the action of a stimulant for a long period; but the instances on record are numerous in which the latter occurrence has been noted, and vital energy was maintained even at a high point.

Recent researches have shown that there is in alcohol, as in nearly all other stimulants, a line of dosage below which no narcotic, but stimulating effects are produced, and this line is nearly constant for each individual. The physiological action of large doses has quite the contrary effect; in-

deed, let the individual pass the line by just so much as is necessary to produce a little flushing of the face or a slight diuresis, and immediately a small but certain unchanged quantity of alcohol will pass off in his urine.

This is always so sure a line of demarkation, that just as soon as these symptoms are developed, there is danger of poisoning. But these symptoms are not due, as many would have us believe, to the stimulating effect of alcohol, but on the contrary to that of narcotism. Alcohol in such doses immediately produces a paralyzing effect upon the whole nervous system; the flushing of the face is due to a paralyzed condition of the cervical sympathetic.

As long as all the alcohol is burnt up in the body and undergoes chemical changes, so long will it produce no narcotic effects; but as soon as it comes in doses too large, and overfloods the whole system, then it produces a paralytic effect upon the brain and all the nerves, and generally lowers arterial tension, which depends altogether upon vasomotor paralysis; therefore we find an increased, passive, excretory action of the kidneys, not natural, but simply flowing out, the barriers having first been knocked down to facilitate its egress. It has been proved by repeated experiments that about one ounce of pure alcohol can be taken into the system *per diem*, and undergo a chemical change without producing any narcotic results whatever.

Alcohol in the form of wines sustains the most prominent fitness for all legitimate purposes of this kind.

Let us, in the first place, consider the relative strength of wines as compared with each other.

The strong wines, including port, sherry, madeira, marsala, and all that genus, on the average contain about seventeen per cent. of absolute alcocol; and the light wines, including claret, burgundy, champagne, Rhine, Moselle, and Hungarian wines, average about ten per cent of alcohol. It is among the wines which do not exceed, on an average, more than ten per cent. of alcohol, that we must seek a beverage for every-day life; and among these there is perhaps none better than the Bordeaux and sherry wines.

There is no clear line of demarkation between health and disease, as is generally assumed in common speech. The foreshadowings and faint images of diseases are often to be seen in the life of those who are usually regarded as healthy.

It is in the study of the conditions, as those of the laboring man, the hard-working student, the professional man, the politician, or the busy merchant, and their relations to the dietary remedies which general custom has prescribed, that we are most likely to find a true basis for the use of

these remedies in disease—conditions which imply an obvious deviation from the line of health. For such there should be prescribed, as a regular daily allowance, a bottle of claret or sherry, divided into three equal doses, one dose with each meal. The number of persons with whom such a diet really disagrees is very small.

The judicious use of wine as a part of diet in young children is entirely free from danger, and on the other hand will do a great deal of benefit. The cases in which it is useful we cannot absolutely call disease; they are those where a tendency to wasting is very marked, and where trifling catarrhs are caught very easily, and are very slowly shaken off.

Adults should be advised to take their wine only with their meals, while in children, on the contrary, it is much better to give it separately, at regular intervals.

Used with proper precautions, there is no danger of corrupting children's taste. In concluding this paper, I would say that my sole object is to show how wines may be made the wholesome beverage of ordinary every-day life rather than a dangerous, seductive luxury, easily leading to fatal results.—*Boston Medical and Surgical Journal.*

ART. IV.—*The Treatment of Erysipelas.* By DR. V. KACZOROWSKI.

Translated for the Journal from the Berliner Klin, Wochenschrift, Dec. 30, 1872, by E. WIGGLESWORTH, Jr., M.D.

During the last three months so many cases of erysipelas have occurred here in Posen, that we are justified in speaking of an epidemic of this disease.

The same has occurred in other large cities, especially in Berlin.

The malady, especially in advanced cases, has been characterized by a marked intensity in the nature of the symptoms, excessive dermatitis, with mortification of the skin of whole limbs, and a tendency to spread over the entire surface of the body.

The object of the physician has always been to interpose a barrier to the progress of the inflammation outwards from its starting point, since this progress guages the injurious effects of the disease.

The following remedies, arranged according to their

value—nitrate of silver, collodion, oil of turpentine, cold tar—do not, unfortunately, always suffice, and erysipelas is only too common, in the case of many people, after even apparently slight injuries or operations.

Since the disinfecting properties of carbolic acid have become more thoroughly recognized, I have instituted a series of experiments, extending over the last two years, with regard to the action of this agent in cases of this disease, basing my anticipations of a favorable result upon my belief that erysipelas is an infectious disease, dependent upon the presence of micrococci, a belief justified by the concurrent testimony of the investigations of von Recklinghausen, Woldeyer, Hueter, Klebs and Orth.

The results of these experiments have been extremely favorable, almost without an exception.

Appreciating the deceptiveness, as a rule, of infallible remedies, and the consquent disappointment of the practical physician, I have refrained from the publication of my method of treatment so long as my observed cases were few in number. But the extended opportunities of investigation offered me in the hospitals during the last few months, both as to number of cases and severity of systems, have confirmed my beliefs, and warrant their introduction to the medical public.

My colleague, Dr. Samter, who has charge of the female wards of the City Hospital, has adopted my method of treatment, and neither of us has thus far lost a single case of erysipelas, although many very advanced cases have been sent to us, completely exhausted, and with gangrenous destruction of the skin of entire arms and lower thighs.

The treatment is a combination of several factors, the object of which is, on the one hand, a repression of the development and of the extension of the globular bacteriums, and, on the other, the support of the resisting power of the organism, the activity of the heart, by stimulation and an easily digestible diet.

To obtain the first result, those parts of the skin which are affected already by erysipelas are rubbed, by means of the finger or a little sponge, every three hours, with a mixture of carbolic acid and oil of turpentine (1.10), but *very gently;* the skin in the neighborhood, however, more energetically. The whole district rubbed is then covered with a soft linen compress moistened with concentrated lead water (1.100), and finally the parts affected already by the disease, are again covered, outside of this compress, by thicker linen cloths dipped in ice water and lightly wrung out, or by a bladder of ice.

The external enveloping compresses with ice water, are changed as often as they begin to grow warm.

The head, or a whole extremity may be thus covered with ice water compresses; lesser affected surfaces on one level may be covered by the ice bladder, which requires a less frequent renewal.

Internally, the patient takes lemonade, or a weak solution of chlorate of potassa, to alleviate the accompanying stomato-pharyngitis, and prevent diptheric depositions, and every one or two hours a teaspoonful of strong wine, to support the action of the heart.

In very rare cases, accompanied by excessive adynamia, a few doses of camphor were exhibited.

For the relief of pain, and the limitation of the exudative process, a subcutaneous injection of morphia (0.005–0.01), is made morning and evening, in the vicinity of the parts affected.

Regular operations of the bowels are induced by cold water clysters, or castor oil.

The subjective condition of a patient under this treatment is quite endurable, for he lies the whole time in a light doze, almost without pain.

Objectively, we notice, on the places which have been rubbed, at first increased redness of the skin, which extends more and more, under the successive inunctions, over the previously healthy skin surrounding the erysipelatous patch, frequently producing vesiculation and loss of epidermis.

This artificial erythema of the previously healthy skin is easily distinguished from the erysipelatous district, since in the periphery of the former, there is wanting the œdema of the skin which accompanies the erysipelas.

We next observe a dryness and shrivelling of the epidermis of the erysipelatous patch, as if this had been slightly tanned. This condition soon extends outwards, over the surrounding territory, although less in degree.

In the course of twenty-four to forty-eight hours, the exudative process is cut short, as is manifested by a somewhat abrupt fall in the temperature of the skin and in the frequency of the pulse. This is the signal to desist from the inunctions, though the lead-water compresses around and outside of the erysipelatous patch may be continued for one day or more.

When this treatment has been pursued, we have never seen a relapse.

If the erysipelatous process extends itself beyond the time stated, it is the fault of the attendant, and no such

case has occurred in our experience since we impressed this fact upon our hospital nurses.

Finally, I must remark that the use of tar, as recommended by Prof. Hueter, is based upon these same principles.

Where I have employed tar, the desired result has been less speedily obtained than by my own method, possibly because the tar, from its consistence, is less thoroughly taken up by the skin than the more fluid oil of turpentine, impregnated with carbolic acid.

Tar is also less well adapted for use upon the scalp, especially in the case of ladies, than my solution, in which the oil of turpentine conceals almost entirely the smell of the carbolic acid.

Above all, I hold that the use of tar alone, without the simultaneous employment of cold, is sufficient for the speediest possible cutting short of the process.—*Boston Medical and Surgical Journal.*

ART. V.—*On Iodide of Potassium in Syphilitic Skin Disease.* By J. McCALL ANDERSON, M. D.

(*Diseases of the Skin*, p. 180, London, 1872.)

With regard to the employment of iodide of potassium in the treatment of syphilitic skin diseases, Dr. Anderson lays down the following rules:

1. The longer the interval which has elapsed between the contraction of the syphilitic taint and the development of the eruption, the more confidently may we substitute it for mercury.

2. If the patient is cachectic, it is, as a rule, to be preferred to mercury, except in recent cases of syphilis, when the mercurial vapor bath, or some such treatment, is more likely to prove successful.

3. The more extensive the tertiary eruption, the more certain it is to yield to iodide of potassium, although to this rule there are numerons exceptions.

4. If there is any tendency to syphilitic disease of the nostrils or neighboring parts, iodide of potassium should be withheld, or given with great caution, for if it produces coryza it is very apt to aggravate the morbid condition of the parts.

5. It should be given in full doses. Dr. Anderson's ex-

perience has led him to conclude that ten grains is the proper dose in the majority of cases, and that occasionally as much as thirty or forty thrice daily may be requisite. It is generally advisable to prescribe it in combination with a bitter, and in cachectic subjects a little iron is a valuable addition, as in the following prescription: Ammonio-citrate of iron, three drachms; iodide of potassium, one ounce; syrup of ginger, six ounces; compound infusion of gentian, eight ounces; water to twenty-four ounces. A tablespoonful in a large wine-glass full of water thrice daily.

ART. VI.—*Case of Excessive Hypodermic Use of Morphia.* By JUDSON B. ANDREWS, M.D., Assistant Physician to the New York State Lunatic Asylum, Utica.

Dr. Andrews mentions the case of a woman, aged thirty years, who had passed into an acutely maniacal condition, and exhibited scars and ecchymosed spots, covering nearly the whole of the body, which could be reached by her own hand. When convalescent, she asserted that she had employed the hypodermic injections for three and one half years, once, and much of the time, twice a day, making in all about two thousand injections; that during the last few months of its continuance, she had used a drachm and one half of morphia per week; that she inserted the needle perpendicularly to the surface, and often carried its full length into the tissues. About four months before death, the patient, in rubbing her hand over the breast, discovered an elevated point just under the skin, which, on pressure, gave a pricking sensation. This was cut down upon, and a broken needle extracted. From this time, from one to twelve needles were removed daily from various parts of the body; from the left breast, the abdominal parietes, the mons Veneris, the labia and vagina, the thighs, from the leg down to the ankle, from the buttocks, from about the anus, from the back as high up as between the shoulders. Two hundred and eighty-six needles were taken from the body during life; 11 were found in the tissues after death; 3 were passed from the rectum during sickness; making a total of 300 needles and pieces. Of this number 246 were whole, and 54 were parts of needles. As regards position in the body, they were distributed about

as follows: In right breast, 150; left breast, 20; abdomen, 60; genitals, 20; thighs and legs, 30; back, 20.

It was supposed that they were introduced through the skin while she was under the influence of morphia hypodermically administered, and while suffering from hysteria. That some were found in positions where they could not have been inserted by the patient, can be accounted for by their movements in the tissues, which were observed so often during the life of the patient. Her mother could throw no light on the subject, but recalled the circumstance that the patient purchased at one time ten papers of needles, and could account for only two of them. They were not obtained or introduced while in the asylum.—*American Journal Insanity, July*, 1872.

ART. VII.—*Carbolic Acid as an Anæsthetic.* By ANDREW H. SMITH, M.D.

Dr. Andrew H. Smith reported to the Medical Society of the County of New York April 22d, 1872, some experiments made upon himself, which fully confirm the statement of Dr. J. H. Bill, as to the local anæsthetic power of carbolic acid.

"In my first experiment," says Dr. Smith, "I painted a spot on the forearm, about an inch in diameter, with carbolic acid of about the strength of 85 per cent. For about a minute there was a slight burning sensation, after which the integument became entirely insensible, the cuticle being whitened and shrivelled, and the spot slightly elevated. I then with a scalpel made an incision about half an inch in length through the whole thickness of the integument. This was done without even feeling the contact of the knife. The capillary circulation seemed not to be materially interfered with, as the blood flowed as freely as it would from a similar wound under ordinary circumstances. The reparative process was also not impaired, adhesion taking place immediately. Three hours after the application of the acid a needle could be thrust freely into the skin without causing pain.

"In the second experiment carbolic acid was applied as before, and ten minutes after a fly-blister was placed upon the spot. The blister remained eight and a half hours

without causing any pain, and without producing vesication.

"In two instances I have applied the acid previous to incising a whitlow. The operation was almost painless, but, as the whitlow was in each case of the superficial variety, the test was not entirely conclusive.

"Inhaled in the form of spray, I have found the acid very useful in allaying irritation of the bronchial mucous membrane; coughs which have resisted all ordinary treatment have been immediately relieved, and in the course of two or three days entirely removed.

"I would suggest the use of carbolic acid as a revulsive, in cases in which a continuous impression is desired. While causing but little suffering, it produces an intense hyperæmia of the skin, which persists for eight or ten days, and is followed by the desquamation of the cuticle."—*New York Medical Journal,* June.

Gynecology and Diseases of Children.

ART. VIII.—*Infant Digestion.—The Pancreatic Emulsion.* By H. W. BOONE, A. A. Surg. U.S.A., Fort Hall, Idaho.

It seems almost superfluous to say that all mammalia at birth, and for a longer or shorter time afterward, find their only true nourishment in the mother's milk; yet many of these animals, at a later period of life, feed entirely on vegetable products. Why is there such a difference between the food furnished for early life and that taken as the animal matures? Doubtless because the newborn animal is not yet fitted to digest the various elements of food suitable to the adult. Should we feed the young on the usual aliment of the adult, we would find that life cannot be so sustained; vomiting and diarrhœa come on, and with convulsions the animal expires. What are the differences, then, in the digestive system of early life, which make it unable to assimilate substances that at a later period are useful and even necessary? For the period of life before the evo-

lution of teeth, nature furnishes a sustenance that does not need mastication, the food being in harmony with the needs of the economy. All writers agree as to the value of milk for the young. Moleschott calls milk, "*l' aliment des aliments*," or "*le prototype des aliments*," as "*il represente à la fois une aliment solide et une boisson; une source d' albumine et de graisse, de sucre et de sel.*" But lack of power to masticate is not the only reason for all the difference between the assimilative power of the new-born and the adult. It is not enough to fluidify previously any solid food to render it fit for the alimentation of infants. It is necessary to find out if there are any differences in the action of the digestive juices in early life, compared with those of the adult, and to discover upon what materials of the aliments those differences act. If we take milk as the prototype of the complete aliments, and examine its composition, we find in it, besides water and salts, the three organic groups of alimentary principles which concur to sustain the process of nutrition. The groups of albuminoid or nitrogenized principles, of fatty principles, and of hydro-carbonaceous principles. But mark that the latter are exclusively represented by a kind of sugar called lactin, which, with an insignificant modification, being converted into glucose, is rendered diffusible, becoming at once fit for assimilation, while the starchy principle, so conspicuous an ingredient of the diet of the adult, and which needs so elaborated a process of digestion to be converted into glucose, the material fit for absorption and diffusion, is not at all present in any milk. This marked circumstance in the composition of milk leads to the question, as put by Dr. Sousino: "*Is the easiness of digestion of milk in early life to be attributed to its being deprived of starchy principle?*" or, in other words, "*is it the inaptitude to digest the starchy matter which in early life interferes with the complete digestion of all the aliments which include that material?*" If we can show good reason for an affirmative reply to this question, it follows that in infants there is what we may call *a physiological dyspepsia to starchy matters*, which should guide us in the choice of the best food for infants, and warn us as to what is unsuit-

able. Zoölogists have established some differences in the anatomical characters of the digestive canal, which distinguish herbivorous from carnivorous mammalia; and in man the anatomical conditions of his digestive canal, being between those of herbivorous and carnivorous, give evidence that he is not exclusively the one or the other, but omnivorous. Now what is the condition in early infantile life? Dr. Routh, quoting Burdach and others, says: "It is remarkable that suction is the only faculty for the prehension of food which the child possesses at birth. There is, moreover, no saliva secreted for the first two months, so that no species of preparatory change can take place in the mouth, as, for example, in the conversion of starchy matters into sugar, through the agency of this fluid (saliva). The stomach in infants is a small tube-shaped membrane, dilated in the center, one extremity ending in the œsophagus, and the other in the pylorus, resembling in this character that found in carnivora through life. In position, also, it lies more parallel to the trunk; the large and small curvatures and muscular structures being but very little developed. The liver at birth is unusually large; the pancreas perhaps not more developed than the salivary glands; the intestinal tube is much shorter, and the large intestine approaches more nearly in its length to the small. The cæcum (in which, moreover, it is believed a sort of additional digestion occasionally occurs) is very small. The peristaltic motion is more rapid. All these are evidences that food taken will be kept for a shorter time in the canal, and therefore should be in the condition most favorable for digestion. Lastly, in no other of the mammalia is there, in the first periods of life, such a complete absence of teeth. In man they appear latest, and are longest in obtaining their full development." If we compare all this with what we find in herbivorous animals, we will perceive that they are endowed with more fully developed and perfect organs, fitted for a long period of digestive action upon the food. They have the exact opposites to what we find in young infants. As the child grows, it slowly develops the peculiarities which are permanent in herbivorous animals. All

the changes are calculated to retard the food in its progress, and to submit it to the more complete action of the digestive juices. All this tends to prove without doubt that animal, not vegetable, food is the proper diet for an infant. The principal difference between animal and vegetable food lies partly in the fact that, in the latter we find more materials refractory to any digestion; that in consequence a more elaborate power of digestion is needed to obtain the nutriment from it. We find in both, albuminous principles, fatty principles, saccharaceous principles; while *only starchy principles*, which constitute the chief ingredient of vegetable food, are entirely absent in animal food, meat, or any other tissue, or a product of the animal, as milk or eggs. The same physiological and anatomical arrangement that in infants gives evidence of its being unfitted to appropriate vegetable food, shows that starchy matters cannot be properly digested by infants, there is really in them *a physiological dyspepsia for* starchy food.

M. Guillot, in the autopsy of a number of infants, found a jelly-like substance present in the intestines, which to the test of the tincture of iodine gave evidence of the presence of a large quantity of unaltered starch. The researches of Dr. Sousino bear also on this point. At the East London Hospital, for children, a number were fed with milk, and also with bread and other starch containing food. The following table shows the results:

Age.	No. of Cases.	Result.
3 to 5 months....	4	Starch in motions.
10 months.....	1	Starch in motions not quite clear.
12 to 16 months..	3	No starch in motions.
3 years.....	1	Starch in large quantity.
5 years.....	1	Starch in small quantity.

While these cases suggest the feeble power of infantile organs to digest starch, they also show the need of more extended observation. Let us see what the researches of various writers go to show as to the action of the digestive juices in early life on starchy matters. Bidder and

Schmidt found that the power of converting starchy matter into glucose, was wanting in the saliva of some new-born animals. They also collected some saliva of an infant four months and a half old, and found that this fluid converted the glue of starch into glucose with great difficulty and very slowly. Prof. Schiff, in his lectures on the physiology of digestion, says that the active principle of saliva appears in man only at the age of the first dentition, and confirms all the results obtained by Bidder, who was the first to make researches on this subject. The saliva is not the only secretion which assists in the digestion of starchy matter, both the pancreatic and enteric juices are concerned in it. Dr. Prospero Sousino, editor of the "Imparziale," of Florence, claims the distinction of being the first to investigate the action of these juices in new born animals upon starch materials. These juices being poured into the intestinal canal cannot be collected in man. Dr. Sousino therefore instituted experiments on the young of animals: "After having killed the animal, the pancreas is immediately drawn forth, and being isolated, it is hashed and reduced to the consistence of pap. This is put in sufficient distilled water, and thus there is obtained a pancreatic infusion which is endowed with the same digestive powers as the pancreatic juice. If we pour some drops of this fresh infusion on some glue of starch, and afterwards apply to the mixture Trommer's test, we shall have evidence whether the transformation of starch into glucose has taken place, and therefore whether the pancreas of young animals possesses or not the digestive action on that material as it does in the adult. We made the experiments with the pancreatic infusion of five sucking animals, *i. e.*, a little dog, five days old; another dog fourteen days old; a cat, seven days old; and two rabbits, seven days old. The result was, that the fresh pancreatic emulsion of all these animals was incapable of transforming starch into glucose, *even after a long contact*, whereas the same *fresh* pancreatic emulsion of *adult animals* produces the transformation in a very short time indeed, almost immediately." The experiments on enteric juice were inconclusive. His conclusion is: "*Pancreatic*

juice in dogs, cats and rabbits, in the first week of life, perhaps for some days more, is devoid of any digestive action on starch."

These experiments, tried on three different species of animals, two carnivorous and one herbivorous, in all of whom the period of sucking life is much shorter than in infants, together with M. Guillot's observations, and the known fact of the inactivity of the saliva of infants, enable us to establish that infants, probably until the beginning of dentition, show a true physiological dyspepsia for starchy food, caused by the inactivity of one, at least, probably of all, the secretions that concur in the digestion of those aliments.

It is most important to insist on this condition of physiological dyspepsia in infants, which, perhaps, in the very young reaches the degree of total inability to digest any starchy food, as there is too great tendency, not only of the public, but of the generality of practitioners, to feed infants with starchy matters. Mothers, when they desire to add to the nutriment offered by milk, or to wean their offspring, almost always add starchy materials to their diet; and we find the common pap, or what is still more dangerous, rice, arrowroot, or tapioca, which contain a larger quantity of starch than bread, combined with the normal aliment of the nursing infant. The worst of it is, this is usually done more frequently, and more persistently, when the infants do not thrive, and when they are sick, that is to say, when the digestive power is less than usually able to cope with such abnormal articles of food. Nature has furnished us with a standing example of all that is best for the food of infants, in the mother's milk; when it becomes necessary to supplement this, or to supply its place, we should adhere to this standard as much as possible.

It would only be tedious to enumerate the names of all the distinguished modern writers on the diseases of children and on infant feeding who take this ground. West, Routh, Eustace Smith, Bouchut, Coutavat, and a host of other authorities are unanimous on this point. Zimmerman says: "I know well millions of infants are fed with pap, but I know also that it has killed many hundreds of thousands of them.

And yet," he adds, "it would be more easy to shake the Alps from their basement than to make a *hare-brained* woman understand the danger that arises from the use of pap." It is hardly possible to lay too much stress upon this matter of diet; it is so very difficult to persuade men, *and women*, that what they have always been used to can be wrong. There are hundreds of good medical practitioners who will scout the idea that what they have been all their lives in the habit of ordering for infant diet can be injurious. But as physiology, actual experience, and the writings of so many leading men on the diet of infants, all go to demonstrate the fact that the infantile organism is not able to digest starchy food, we should profit by the lesson, and be especially careful not to burden the digestive apparatus of the very young with food not fitted to their age. The mother's milk, then, cannot in young infants be supplemented by any other form of food; when this cannot be obtained, the milk of other animals must take its place. But there are certain conditions when milk is not well borne or assimilated, and then we must look for other means of sustenance.

Routh, long ago, suggested that pancreatic juice would be of use, particularly for converting starchy materials into glucose; but deplores the fact that he did not know how to obtain this secretion. There is no longer any difficulty; it is known that the infusion of fresh pancreas acts like the pancreatic juice itself, and that if we obtain an infusion ef pancreas in glycerine instead of water, we have a good way of preserving it. Leube found that glycerine extract of pancreas is quite equal in its digestive power to the fresh pancreas, and will remain good for several weeks. The extract must be prepared with the pancreas of a bullock, which is finally chopped and rubbed with 250 grammes of glycerine. There are good reasons, however, to believe that it is unadvisable to feed infants with copious starchy matters, however these may be rendered digestible. The nutriment furnished by starch does not afford materials for the reintregration of the principal tissues, it concurs almost conclusively as fuel to the process of hæmatosis, while the

growing organism needs a greater quantity of those materials which go directly to the development of the tissues. There is also reason to suspect that even the function of hæmatosis is, to a certain degree, defective in the infantile organism, and therefore that it is better accomplished with fatty than with starchy matters, the former being more advanced than the latter in their degree of oxidation.

This conclusion renders the experience of Dr. Leube, and of Dr. Dobell, in the use of the pancreatic emulsion as a source of food, still more valuable. Dr. Dobell, Senior Physician to the Royal Hospital for Diseases of the Chest, speaking of marasmus in children, says: "I wish to bring prominently forward the fact that this state, provided there is no advanced lung-disease, is rapidly cured by pancreatic emulsion given in doses of a teaspoonful every four hours, and regularly persisted in till fat and flesh are restored. It is of course necessary that a proper diet should be insisted on at the same time; but proper diet without the pancreatic emulsion will not do. This I have found over and over again in cases where everything judicious in the way of feeding and cod-oil had been carefully and perseveringly tried without avail, but which, on the addition of the emulsion to the previous diet, began at once to improve. This fact has been familiar to me for a long time, and considering how largely pancreatic emulsion is now used in the wasting diseases of adults, I am surprised to find that it is not even referred to in the latest works on the diseases of children. Yet scarcely a week now passes but some general practitioner relates to me cases of the successful use in his own practice of pancreatic emulsion in the wasting of delicate children." Where the mother's milk is deficient in fat and lactin, or the children have been brought up by hand on food wanting in these constituents, the child becomes dissatisfied and craving, and very often it is this want which leads to the introduction of farinaceous food, under the belief that it is "satisfying;" if this is given before the power of digesting starch is established, nothing but mischief results. Dr. Dobell shows that, "Organs, like individuals, do not rise to the full performance of their duties unless

called upon by the necessity for their activity; as the mother is deprived of fat elements by lactation, so is the child deprived of them by a persistance in a diet deficient in milk. In the case of the child thus deprived of fat, a double injury is done—first, by cutting off the supply of fat elements necessary for the protection of the tissues; and secondly, *by paralyzing the function of the pancreas by prolonged inactivity.*" "This accounts in a great measure for the impossibility of restoring these ill-nourished, wasted children by any kind of *natural* diet after they have been allowed to remain in a chronic state of defective nutrition. It is probable, therefore, that it is due to this conjunction of circumstances that these wretched cases of fatal infantile wasting occur; the food deficient in fat not only fails to nourish the child, but fails to develope the function of the pancreas for the digestion of fat at a later period of life; the craving of the child due to the deficiency of assimilated fat is met by starchy food, which it has not the power to digest, and which, if digested, cannot supply the place of fat. Thus it is literally starved from first to last of those elements of nutrition especially essential to early life. We cannot, therefore, be surprised that such cases have proved obstinately fatal, neither is it anything but what we might expect, *a priori*, that they get rapidly well when pancreatic emulsion of fat is added to their diet, for by this means they are enabled to assimilate both fat and starch. Certainly, of all the satisfactory remedial effects of pancreatic emulsion, none equal the almost magical recoveries of some of these miserable wasted children. The cases in which I have seen it administered within the last eight years are too numerous to relate." Dr. Leube, in a pamphlet published at Leipzig, gives a most interesting series of researches, directed to the object of discovering the real nutritive value of food-enemata, and the best means of preserving life by their employment when gastric digestion is impossible. He considers pancreas extract, or still better, pancreas in substance, added to meat, a highly effective nutritive material. "Beef is prepared by shaving it into thin slices, and then chopping it up finely; of this material from five to ten ounces are

mixed with a third part their weight of pancreas, freed from fat and finely minced. The pancreas of pig or ox, quite fresh, is to be used. Transparent specimens of the gland have no digestive power. The mixture of beef and pancreas is to be put into a mortar with about five ounces of *luke warm* water, and reduced to the consistence of a thick soup with a pestle or a large spoon. If it be thought advisable to add fatty matter to the enema, this is added in the proportion of one sixth of the meat, and a thorough emulsion is made." It may be best to pass a rectum tube a few inches up the bowel and inject through it. The results obtained by this method seem to have been highly satisfactory. These enemata are not in the least liable to excite expulsive action; on the contrary, they penetrate a good distance beyond the sigmoid flexure, and remain there for perhaps twenty-four hours, being thoroughly digested and absorbed; and such motions as the patient does pass, are nearly or quite indistinguishable from ordinary fæces. The amount of emulsion mentioned above is an injection for an adult—for children much less must be used. The large intestine must be first cleared by a cold water enema. The first nutritive enemata may not be digested, but this should not discourage us. The injections produce a temporary increase in the fullness of the pulse, and an improvement of the general condition of the patient.

ART. IX.—*San Rafael Clinique.—A Case of Puerperal Fever Successfully Treated by Opium and Veratrum Viride.*

The following case of a disease, only too often ending in death, is communicated as presenting some points of interest:

Mrs. B., primipara, was delivered by the forceps at 7 A. M. on the 18th. The membranes had broken at 9 the previous evening, and at the time that a resort was had to forceps (after many ineffectual efforts to overcome a rigid perineum), all pains had ceased. The mother and child did well until the 25th, eight days after confinement, when. at half after 1 A. M., the mother was seized with a rigor,

which continued for some time. I did not see her until the time of my morning visit, at 11 o'clock, when I found the pulse at 120, and, on firm pressure, slight tenderness over the abdomen. The skin was moist, the tongue clean but red, the breathing more rapid than normal, and an enema of castor oil and turpentine, with a few drops of tinct. opii was ordered, which, not acting, a tablespoonful of castor oil by the mouth was given. By 3 o'clock the bowels had acted twice, but the pulse had run up to 135. There was more pain on pressure over the uterus and right broad ligament, with considerable tympanitis, and I directed hot turpentine *stupes* to be applied to the abdomen, to be changed every half hour. The patient complained of no pain, yet lay on her back with her knees drawn up. My diagnosis was commencing inflammation of the serous membrane covering the uterous and the right broad ligaments.

There had been an epidemic of erysipelas in the town, but as I had not attended a case for some two weeks, I believed that the disease was rather caused by exposure, as the bedclothes were light and the night had been cold. She told me that she had awakened feeling chilly, and that she had not called the nurse, who was in another room, as she thought the feeling would pass away. I decided to treat the case on surgical principles—to bring down the pulse and to keep it below seventy, and to keep the bowels (as Stokes says) "in splints." This I proposed to do with opium and veratrum viride. Both of these articles I had seen used with much success in an epidemic of puerperal fever in New York, by Dr. Barker. In the accompanying table, the frequency of the pulse is given at intervals and the amount of opium and veratrum viride. McMunn's elixir of the former was at first used, and afterwards Magendie's solution of morphia, with an occasional dose of the crude opium. Norwood's saturated tincture of veratrum was used throughout. From this table it will be seen that in the first forty-eight hours the pulse had been brought down to 98 by the administration of the equivalent of 27 grains of opium and 70 drops of veratrum viride. The pulse being quite hard at about this time, the turpentine *stupes* were suspended and 22 leeches applied with a warm fomentation over the abdomen to encourage the bleeding, which continued for about four hours—the total loss of blood was probably about fifteen ounces. This changed the character of the pulse and enabled the medicines to act with more effect, so that six grains of opium and 20 drops of the veratum in ten hours brought the pulse down to 60 and the respiration to 6. From this time the pulse was kept until

the close of the case between 90 and 60, by the careful use of these medicines and of stimulants when necessary. The amount of opium used during the seven days was a little over 65 grains, and of veratrum viride about 120 drops. During this time the patient had had nothing in the way of food, except a little of the juice of meat (extracted with acidulated water.) I now, after carefully examining the uterus, ordered an enema of soap suds, turpentine and water, which was repeated in a few hours, scybala passing; the next day, the sixth of the disease, a consistent stool was obtained. The os was found painful on pressure. A week later, all abnormal tenderness had disappeared, both on external and internal pressure. On the twelfth day from the chill she was allowed to sit up, and three days later, to take a short drive. Since then she has recovered her full strength, and though the flow of milk is not great, is still able to nurse her child. I will only mention, in conclusion, that the calomel first given produced a slight effect on the gums a week later; that champagne, port, sherry, and afterwards ale and porter, were given freely, entirely without any regard to quantity, but solely as to the effect obtained, as indicated by the pulse. In all other respects the annexed table speaks for itself.

[Owing to limited space, we have taken the liberty to condense the table. The observations were taken averaging every two hours, and evince great care and accuracy.—ED.]

Day.	Hour.	Pulse.	Treatment for day, and remarks.
Eighth day from confinem't; first day of disease.	1:30 A. M. 11 A. M. 6:30 P. M. 12 P. M.	 120 112 114	Severe rigor. Enema. McMunn's Elix. gtt. 130. Tr. verat. vir. gtt. 15.
Second day.	7:30 A. M. 2 P. M. 7:30 P. M. 12 P. M.	112 106 100 100	McMunn's Elix. gtt. 270. Tr. verat. vir. gtt. 48. Opium grs. ij. Morph. sul. grs. ⅛ hypodermically. Calomel grs. v. Ipecac grs. iij.
Third day.	9 A. M. 2 P. M. 8 P. M. 12 P. M.	94 98 94 84	McMunn's Elix. gtt. 320. Tr. verat. vir. gtt. 34. Calomel grs. v.; ipecac grs. iij.; opium grs. ¼. Morph. sulph. grs. ⅛. 22 leeches applied.
Fourth day.	1 A. M. 8:40 A. M. 5 P. M. 12 P. M.	60 80 92 96	Respiration 6. Mc'Munn's Elix. gtt. 30. Tr. verat. vir. gtt. 1½. Morph. sul. grs. 2½. Wine ℥ijss.

Days.	Hour.	Pulse.	Treatment for day, and remarks.
Fifth day.	1:30 A. M. 7:15 A. M. 12:15 P. M. 5 P. M. 10 P. M.	90 80 66 78 86	Morph. sulph. grs. 4. Tr. verat. vir. gtt. 28. Spts, ammon. aromat. Beef juice. Milk. Lime water. Wine jelly.
Sixth day.	1:30 A. M. 8:20 A. M. 3:30 P. M. 6:30 P. M. 10 P. M	83 80 80 68 88	Morph. sul. grs. ½. Milk } ad lib. Beef tea } ad lib. Wine } ad lib. Enema.
Seventh day.	1 to 8 A. M. 10A.M. to 3P.M.	86–68 73–90	Champagne. Beef tea. Solid food.

Ophthalmology and Otology.

ART. X.—*A Case of Catarrh of the Eustachian Tubes, from Naso-Pharyngeal Catarrh, with Considerable Deafness, Tinnitus Aurium, and Vertigo, cured in one Week by Inflation, and Nitrate of Silver to the Tubes, by the Faucial Eustacian Catheter.* By O. D. POMEROY, M. D.

I. J., aged twenty-four, applied on January 10, 1872, with a considerable deafness, tinnitus aurium, and symptoms of vertigo.

The tinnitus was located in the head, and not in the ears, as is occasionally the case, and was very annoying.

The last series of symptoms has continued for four weeks. Last winter he had a similar attack, except there was no perceptible deafness, which lasted until warm weather. On examination I found the membranes somewhat sunken, with the light point diminished in size; otherwise they were normal. The hearing distance was 4″ for right, and 6″ for left, which by inflation by means of the faucial Eustachian catheter arose to 12″ for right, and 14″ for left. The throat was red, granular, swollen, and œdematous; the uvula swollen and elongated. I at once applied a half-drop of a 4.80

gr. solution of arg. nit. to each Eustachian tube by means of the faucial catheter. This was repeated three several times, at intervals of two days, when the patient was found to be cured; the hearing distance had arisen to the normal for watch and voice; the tinnitus and vertigo had entirely disappeared. The patient is still (February, 1872) under treatment for the naso-pharyngeal catarrh by means of carbolic acid, one ounce to the pint of water every other day, by the hand-rubber spray instrument. This case illustrates the nature of tubal catarrh dependent on pharyngeal catarrh. The latter has been present for a long time, but has failed to involve the region of the Eustachian tubes sufficiently to disturb their function, except on this occasion, and once last winter, when the ear-trouble, true to its catarrhal causation, continued until warm weather.

This case is peculiar in not at first exhibiting the maximum hearing distance after inflation, which in cases of this description is usual. The surgeon ordinarily is only able to state to the patient that the restoration of the hearing is equal to the best attainable result of inflation on the first or second interview—the object of the treatment being to maintain a normal perviousness of the tubes, so that inflation after a while is unnecessary. The catarrh of this patient should be treated several months at least, and in the meantime we may observe a relapse to the hearing distance, which will only be temporary. It will also be found, as the experience of the writer has proved by many cases, that relapses of throat or ear trouble will occur much less frequently after a course of treatment than before; the patient not "taking cold" in the head and throat as readily as previously, or, if he does, it is not as severe or long-continued an attack.

ART. XII.—*A simple Method for Removing Cystic Tumors from the Eyelids.* By J. J. CHISOLM, M. D., Baltimore.

It is a modification in the use of the nitrate of silver that Dr. Chisolm has found so effective in the treatment of sebaceous cysts of the lid, and which has enabled him to discard for many years, the tedious, painful, and sometimes dangerous cutting out of such tumors. If the tumor be a sebaceous cyst, located between the upper portion of the tarsal cartilage and the skin, a Desmarre's ring forceps is used as a clamp upon the lid, to shield the ball of the eye from injury, to fix the tumor, and to prevent annoying

oozing of the blood. Under this ring-pressure a small opening is made into the cyst, through which its contents are squeezed out. The end of a small silver probe, dipped in nitric acid, is then passed into the cavity, is made to pass over the epithelial lining surface, and is withdrawn. Usually, in its passage into the cavity of the tumor, it cauterizes sufficiently the lips of the incision to prevent any oozing of blood when the clamp forceps is removed. When the cyst is formed by the closure of a Meibomian duct, the better plan is to evert the lid and make the puncture from the conjunctival surface, the caustic being applied as directed. The advantage gained by this modification is in the more certain, thorough, and yet restricted application of the caustic, confining its cauterizing influences only to those portions in which action is desired. The results are in every case satisfactory. No after-treatment is needed. *Canada Medical Journal*, July.

Editorial.

In our last number we gave the correspondence which led to the acceptance, by the State University Board of Regents, of the Toland College property. We now give the report of the committee in relation to the organization of the Faculty, and the resolutions by the Board, as a matter of reference.

THE TOLAND MEDICAL COLLEGE.

In August, 1870, the Regent organized a medical department, but it was unsuccessful, owing to disagreement as to the terms on which Dr. Toland's Medical College was presented. Now, however, the College has been presented unconditionally, and the subjoined report shows the footing on which the Medical Department has been organized:

The committee appointed to receive the transfer of the Toland Medical College, and to report upon the subject of medical education, respectively report:

1. That they have received from the Trustees of the Toland Medical College a deed conveying the property of said College to the Regents of the University of California, together with an abstract of the title to the same and a

copy of the resolution of the Trustees authorizing the conveyance.

2. They find that a plan for the organization of a department of medicine was adopted by the Board August 2, 1870, eight chairs were established in the medical department, and that on November 2, 1870, a Board of Medical Examiners was appointed.

3. They recommend the reënactment of the resolutions of August 2, 1870, establishing a medical department and the establishment of another series of chairs in the department, October 3, 1870, as follows:

[See list of chairs and Professors elected at close of this report.]

4. The committee recommend the establishment of chairs of dental surgery and of mechanical denistry.

5. They recommend to the Board to fill the chairs thus created, and also to appoint a Board of Examiners; and they recommend that if any of the gentlemen chosen Professors do not accept, those who do accept provide for the performance of the duties of the vacant chairs during the next year.

6. They recommend that in perpetual recognition of the munificence of Dr. H. H. Toland, one of the chairs in the Medical Department, to be designated by him, shall be known as the Toland Professorship; and further, that a suitable inscription be placed upon the Medical Hall which he has given, designating it as the Toland Medical Hall.

The Committee submit herewith as part of their report:

First—A communication presented to them by the Faculty of the Toland Medical College.

Second—A transcript of the Act of the Board of Regents of August 2, 1870, establishing a Medical Department.

Third—A list of the Professorships which the Board are recommended to establish.

H. H. HAIGHT,
S. F. BUTTERWORTH,
A. S. HALLIDIE.

THE NEW PROFESSORSHIPS.

In accordance with the recommendations of this report, Professors were elected as follows:

H. H. TOLAND, Clinical Surgery. R. B. COLE. Obstretrics and Clinical Diseases of Women. H. GIBBONS, Jr., Materia Medica and Pharmacy. C. T. DEANE, Diseases of Women and Children. C. M. BATES, Clinical Medicine. WM. T. BRADBURY, Therapeutics. E. BENTLEY, Pathology. A. A. O'NEIL, Anatomy. GEO. HEWSTON, Theory and Practice of Medicine. H. GIBBONS, Sr., Medical Jurisprudence

and Mental Diseases. A. BARKAN, Ophthalmology and Otology. W. J. YOUNGER, Mechanical Dentistry. D. VAN DENBURG, Dental Surgery. THOMAS PRICE, Chemistry and Toxicology. M. W. FISH, Physiology. C. BRIGHAM, Orthopedic Surgery. LEVI C. LANE, Principles and Practice of Surgery.

RESOLUTIONS ADOPTED.

Resolved, That a College is hereby created and organized, which shall be known and designated as "The Medical Department of the University of California."

Resolved, That the several Professors in the Medical Department shall be elected by the Regents, and shall hold their office upon the same terms as the other Professors of the University.

Resolved, That the Faculty of Medicine shall have the right to determine the qualifications for the admission of students, and in lieu of salary, to charge such fees as they see proper; to make such regulations, not inconsistent with the organic act, for the preservation of order, and for the management of the internal affairs of the Medical Department as they may deem best, and to determine the course of study.

Resolved, That the Regents of the University will establish a Board, to be known as the Board of Medical Examiners of the University of California, and will annually appoint the members of said Board, whose duty it shall be to examine all students applying for a medical diploma, as well from the Medical Department of the University as from other medical colleges.

The Regents of the University will confer degrees upon such students of medicine as may be recommended therefor by the faculty of their respective colleges, and whom the Board of Medical Examiners shall report entitled thereto, and upon none others.

These resolutions, together with the report, were adopted.

On motion of Mr. Butterworth, Dr. A. J. Bowie was appointed to present to the annual meeting in June the names of professional gentlemen qualified for the position of Examiners.

There was no other business of importance before the meeting.

We have since noticed the following in print:

THE RECENT APPOINTMENT TO PROFESSORSHIPS IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY—PLAIN LANGUAGE TO THE BOARD OF REGENTS.—A letter, of which the

following is a copy, will be presented to the Board of University Regents at its next meeting:

D. C. Gilman, President University of California; A. J. Moulder, Secretary Board of Regents—Gentlemen: We have received from you a notification of our appointment by the Regents to Professorships in the Medical Department of the University of California, the appointment having already been made public through the newspapers. Our acceptance would involve the sacrifice of our own school—the Medical College of the Pacific—built up to success by years of assiduous labor. For this and other reasons, we respectfully decline the proffered honor. Indeed, we had already declined, in the most positive manner, a proposition to the same effect, coming, as we were assured, indirectly from the Board of Regents, of which fact a Committee of the Board was apprised. Under these circumstances, you will pardon us for expressing our surprise at the appointment and the public announcement of it, without further consultation with us, seeing that such a course must inevitably give the impression that we had surrendered our own school, and not only injure us in that way, but place us, in the event of declining to accept, in an unfair position before the public, as factious and hostile to union with other members of the profession in furthering the cause of medical education in California.

HENRY GIBBONS, M. D.
L. C. LANE, M. D.
E. BENTLEY, M. D.
ADOLPH BARKAN, M. D.
THOMAS PRICE, M. D.
HENRY GIBBONS, JR., M. D.

The State Medical Society.

THE third annual session of this society was held in Sacramento on the ninth and tenth of April. There were about one hundred members present. Most excellent papers were read, and from the large attendance, the character of the transactions, the exceeding good disposition manifested, and the perfect arrangements of the committee whose duty it was to direct the programme, it may certainly be said that the last was the most successful, the most harmonious, the most interesting, of all the sessions of the society.

We rejoice to see the increasing interest manifested by

the profession in these gatherings, as manifested by the larger number of delegates, and their efforts to contribute to the stock of medical literature, as shown not only by the quantity but quality of their essays, and the efforts of those who attend to preserve that harmony which is so conducive to unity and strength. On this occasion the attention of all was directed to secure the greatest good to the society, and we feel that the strength of the organization is now developed to that extent that its permanence is no longer a doubt, as has been feared by many.

No one who was present can hesitate to award to the "Sacramento Society for Medical Improvement" a large portion of the credit for the above mentioned results. Its members, one and all, gave their time and services to the society; their houses were opened to its delegates, who wanted for nothing that the most watchful care and thoughtful attention could provide; their programme was admirably arranged, and their elegant banquet was the crowning proof of their good-will and hospitality. Inspired by the zeal of the local profession, His Excellency the Governor honored the members of the society by throwing open his residence and inviting his friends to bid them welcome with him. The occasion was one to be remembered with pleasure, and our Sacramento brethren may congratulate themselves on having more than succeeded in their attempt to cement the bond of union between the members of the profession, and to give the society an impetus which will be lasting.

We publish entire the able address of the President, although it will appear in pamphlet form, as well as in the transactions. It is a document which should be read attentively by the professions, medical and legal. In fact, we would like to print many of the essays, to which we listened with pleasure as well as instruction, and which in the transactions may not reach all who see the LANCET.

An additional evidence of the interest awakened by the society was the presence of the President of the State University, who generously gave his time, already overcrowded with duties pertaining to his position, and cheerfully accepted an invitation to address the society on "Studies preparatory to Medical Education." We hope to publish

the address entire in another number. It is needless to remark that the whole tenor of the address was to secure a higher degree of qualifications for admission to the medical course, consequently a more exalted standard for graduation. It met with the hearty thanks of the society, together with a request for its publication for general distribution.

In conclusion, we earnestly hope that the next meeting may be as highly satisfactory as was the last. The same good rule was adopted in the selection of officers as last year—namely, to avoid all connection with either of the medical schools, and it will depend, in a great measure, on the committee of arrangements to be appointed, if the programme be made as attractive as was the last.

Miscellaneous.

The State Medical Society.

Owing to the courtesy of the reporters of the Sacramento *Union* and *Record*, we are enabled to lay before our readers a very complete report of the proceedings of this Society at its third annual session held in Sacramento.—ED.

FIRST DAY.—APRIL 9th.

The Society was called to order by the President, Dr. Shurtleff, at 1.30 P.M. Dr. Montgomery, of Sacramento, Chairman of the Committee of Arrangements, delivered the address of welcome. The roll of members was then called, after which the President delivered his annual address, as follows:

Gentlemen:—The change in the time of holding our meetings brings this annual session within just a half year of the last. During this brief period, so little of new or uncommon interest has transpired that I deem it unprofitable to attempt an excursive view of general topics connected with our profession. I propose, therefore, to confine my remarks mainly to those subjects which appertain more particularly to that branch in medical science in which I am specially engaged.

The division of forensic medical jurisprudence of insanity seems at this time to urgently claim our special consideration.

The frequency with which the plea of insanity has of late been resorted to, with undeserved success, to avoid responsibility for crime; the irregular, unscientific, and generally unfair manner with which such trials are conducted with regard to medical testimony; the danger of a more unenlightened, misguided, reactionary movement, to the peril of the really insane; the ends of justice, and the welfare of society, all seem to call for reform in the law relating to the trial of criminal cases in which the mental condition of the accused is involved.

We need not stop to consider the disparaging comments, which, in a few rare instances, have been uttered, even from the bench, in both England and the United States, upon the testimony of medical experts. Still less worthy of notice are the jeers of the criminal lawyer, whose inflated words scarcely outlive their echoes, and who sometimes seeks to conceal by ridicule the parts of his cause which he is unable to support by evidence. As the sciences of law and medicine advance, the more will the latter be called in aid of the former, in all cases involving medical questions. When Lord Hale influenced the verdict of a jury by the avowal of his belief in "such creatures as witches," and sentenced two women to be hung, who were accordingly executed for the crime of witchcraft; when insanity was regarded as a demoniacal possession instead of a disease, the testimony of medical experts was less sought and less respected than it is now.

Although moral or physical causes may produce the physical condition on which it depends, insanity is the result of some physical disease, change or defect, as much as is the dyspnœa of asthma or the involuntary motion of chorea. Instruction in its causes, nature and treatment are a part of the professional education of the regular physician as much as is his knowledge of any of the diseases with which man is afflicted.

In our physical life the mind is dependent on physical organization for its development and action. It has its anatomy, physiology and pathology. Its special organ is the brain, the most complex and delicate of organized structures. This organ has its essential auxiliary in the senses, through which it receives impressions from without, and by which the mind within is endued with a consciousness of external nature.

A knowledge of the nature of mind is beyond the reach of the finite understanding. The profound and subtle logic of

Herbert Spencer fails to grasp it, and all metaphysical attempts to explain it leave us in confusion and darkness. Mere science can neither comprehend it nor pursue its existence or condition beyond its connection with the body. It is only its mode of action, in its somatic relations, which comes within the province of medical study and research. The conflicting opinions of mental physiologists arise from an attempt to explain the nature of mind, not from any dispute that the brain, with its nervous connections, is the organ by which its action is manifested.

I know of no purely physical theory maintaining that the mind possesses the power of acting to the comprehension of human beings, unconnected with its material organism, unless the so-called spiritists, with whose doctrines I am unfamiliar, entertain such a belief.

Among the most eminent and learned physiologists, there seem to be two pretty distinct theories advocated regarding the connection between the mind and the body.

One class of physiologists holds that the will, or some mental force which is purely the attribute of the soul, directs the mental action of the brain. The brain is the necessary instrument of our mental operations, which receives impression from without, elaborate ideas, and gives expressions to intelligence and emotion, as the telegrapher's apparatus develops the electric energy, receives impressions and intelligibly expresses them. The operator represents the higher mental principle, the *ego* or will (Van der Kolk). Yet he is unable to evoke and apply the energy and to receive and give expression to his message without the means of the material apparatus; and the instrument is equally incapable of performing its office without the higher directing power of the operator. This view of the relation between force and matter is illustrated by Faraday in his philosophy of vital force.

Hence we see that though the inexplicable immortal *ego*, or higher principal of mind, exists, it can manifest itself, during man's finite existence, only through or by means of the physical organism, with which the law of an all-wise creator holds it in inseparable connection; and it can manifest itself or direct the natural forces of the mind only according to the condition of the organic means of action—feebly in the deficient, powerfully in the perfect, and in an irregular, deranged manner in the disordered organization.

The other class of physiologists do not recognize a dualism of force and matter. They hold that mind is the product of the action and development of the brain—"an organized result, matured by insensible degrees in the course of life." Professor Austin Flint, Jr., in his recent work on the

nervous system, thus plainly states his views, which clearly distinguish him from the class first noticed. He says "the brain is not, strictly speaking, the organ of the mind; for this statement would imply that the mind exists as a force independently of the brain; but the mind is produced by the brain; and intellectual force, if we may term the intellect a force, can be produced only by the transmutation of a certain amount of matter."

While, therefore, there is a difference of opinion among the foremost of our profession as to the exact relation between the mind and the body, all agree that the mind is dependent on the brain and its sensory and nervous auxiliaries for its development, efficient action and manifestation during the finite life. Whether above this organized source of the mind there is a higher, independently acting, directory force, is a metaphysical question, or rather a matter of belief, which no physiological investigation can reach.

It is now satisfactorily demonstrated and generally acknowledged that the gray cortex of the cerebral hemispheres is the seat of the mental faculties. At the base of the brain are the sensory ganglia, possessed by the lower animals as well as by man, which receive, but have not the power of retaining, impressions from the external world. Above these sensory ganglia, never developed in the lower animals as in man, are the cerebral hemispheres, with their deep sulci and numerous convolutions. In the gray substance of these convolutions are layers of innumerable nerve cells. Now, the sensory ganglia, at the base of the brain, which receive impressions from without but never retain them, are connected with the nerve cells of the hemispheres by fine medullary fibres, whose function undoubtedly it is to take up the fleeting impressions from the sensory nerve centers to the supreme nerve centers, where they are retained. Thus what we see, and hear, and feel, if recognized by the supreme nerve cells, is preserved, compared and arranged, and elaborated into definite ideas. These nerve cells of the cerebral hemispheres are the "nervous centers of ideas" (Maudsley); or, more comprehensively, of the mind, including the intellect and the emotions or feelings, and the executive function of volition.

Conductive medullary fibres also connect the supreme nervous centers with each other, thus giving them the power of reaction upon each other and securing the co-ordination of the whole. A kind word does not create a pleasurable emotion until the intellect comprehends the quality of the word; and an insulting speech cannot arouse the emotion of anger until intelligence discerns the offensive character of the speech. On the other hand, from this intimate connec-

tion and mutual reaction, the intellect derives force, earnestness and warmth of expression from the emotions. Its faculties thus anatomically united, the mind is physiologically a unit.

Insanity cannot exist, in my opinion, without an affection, idiopathic or sympathetic, of the nervous centers of the hemispheres of the brain. For instance, suppose the sensory ganglia to be diseased. The result would be hallucination of some one or more of the senses. But as long as the higher nervous centers remain sound, the hallucinatory impression is by them recognized as such, and known to be a false impression resulting from disease. Now if the nervous centers of the cerebral hemispheres become involved in the disease there is no power left to correct the hallucination, and insanity is the result.

In what particular part of the brain cortex are the nervous centers of the intellect, and in what part those of emotion, or any other faculty of the mind, is not known, though some advance appears to have been made in that direction by one whose opinions are entitled to the highest consideration.

Professor Shroeder van der Kolk says that "as the result of many years continued and accurate examinations, I can state that in proper intellectual insanity invariably the cortical layer under the frontal bone appears more deeply colored, was more firmly adherent to the pia mater, or was softened. On the other hand, in melancholy, where anxious agitation and sensation of heat and pressure occur, and where the emotion more than the intellect suffers, pathological changes are found rather in the convolutions of the upper and hinder lobes. Thus we come to the conclusion that the cells in the upper and hinder lobes have a different action from those of the anterior lobe; the former being about emotional feelings." Again, the same author, in his chapter on the pathological anatomy of sympathetic mania, substantially repeats the same experience: "Generally, however, in melancholy, especially when it proceeds from the intestines and sexual parts, the vertex and back of the head are most affected, and the anterior part of the hemispheres, under the frontal bones, displays the fewer pathological changes in proportion as the patient, during his melancholy, has remained free from general intellectual confusion, and, apart from his ruling false idea, spoke sensibly. In idiopathic mania, these anterior parts of the hemispheres suffer more. But if now, by long duration of the melancholy, the sympathetic brain affection has at length become idiopathic and the melancholy passes into mania or dementia, then the brain affection is no longer circumscribed."

I quote these observations of this distinguished contributor to the pathology of mental disease, not so much to bring forth his immatured and unconfirmed views respecting the particular location of the nerve-centers of the intellect and those of emotion, as to furnish the pathological evidence they afford, that the nerve-cells of the cerebral hemispheres, in the aggregate, constitute the immediate organism by which mental phenomena are produced. Insanity then is an affection of the nervous centers of the cortex of the cerebral hemispheres. Or, as Dr. Skae defines it, "a disease of the brain affecting the mind."

I have noticed one or two points in the anatomy, physiology and pathology of mind, mainly to show how necessary medical knowledge is to a proper comprehension of insanity.

Had we the time to consider all its different forms, and the Protean shapes each form may assume, the necessity of expert testimony, in all cases of disputed mental condition, would appear still more manifest.

There are two forms of insanity which, in criminal cases, there is danger of overlooking where it really exists, and of discovering where it does not exist. I allude to the so-called *moral insanity* and *mania-transitoria*.

Moral mania is the Gordian knot of the jurisprudence of insanity. It has a bad name because it has been so often used to shield the wicked from responsibility for their criminal acts. Its very existence is in dispute. The name is not an altogether acceptable one, but as it has been used by our most eminent authors ever since the day of Dr. Prichard, the medial witness can neither ignore nor evade it. It is the *mania without delusion* of Pinal; the *reasoning monomania* and the *affective monomania of Esquirol*, and finally, it received its present unfortunate name of *moral insanity* from Dr. Prichard in 1835. He defines it as "a morbid perversion of the natural feelings, affections, inclinations, temper, habits, moral dispositions and natural impulses, without any remarkable disorder or defect in the intellect, or knowing or reasoning faculties, and particularly without any insane illusion or hallucination."

That insanity may exist without delusion, of a permanent character, is a fact too well established to require discussion before an association of medical men, though the legal profession is slow to understand it.

We see it sometimes demonstrated in the first stage of the more violent forms of mental disease. The manner of the individual is changed; he feels that all is not right with him; a sense of impending evil oppresses him; he loses his interest in his business, and is unable to apply himself to anything; family and friends cease to interest him, and they

sadly whisper that "his mind is not right." This state may be followed by an opposite condition of lively and exalted emotions, before any delusion is manifested. Finally, after weeks and months, or years possibly, insane delusions appear. Now no one can deny that the mind of such a person was just as truly diseased before as after the disease had arrived at the stage of delusion. In the first stage, suicide may be feared; in the second, waste of property; in the third, any irrational or violent act that the character of his delusions might lead him to commit. In the first stages the emotions or feelings manifest the unsoundness of mind rather than the intellect.

Metaphysicians as well as physicians regard the emotions as a component part of the human mind.

Brown, the successor of Reid and Stewart, and Bain speak of the *intellect* and *emotions*, in analyzing the mind into the faculties or attributes of which it is composed.

Alienests of the present day agree that the feelings, no less than the phenomena of intelligence or reason, are produced by the action of the nervous centers of the cerebral hemispheres. I may again refer to Schroeder van der Kolk, whose pathological researches so nearly convinced himself in what particular part of the hemispheres were situated the nerve-centers of the intellect and the nerve-centers of emotion; not that he has illustrated the general subject so ably as Maudsley, but because he harmonizes his physiology of mind to an immortal "higher principle," though in the finite life "it acts nowhere but in the brain, in which alone our consciousness is rooted."

The mind being thus composed of a union of different faculties, the logical inference is that any one faculty, or set of faculties, is as liable to become the prominent exponent of the mental disease as another; that the emotions, no less than the intellect, may be the seat of morbid action.

There are those who seem to hold the intellect, as long as it presents no marked lesion, responsible for the good government and proper conduct of all the other faculties of the mind. Such a view is inconsistent with the ordinary phenomena of diseased nervous action. Do we not know, by every day's experience, that the subordinate nervous centers, under the irritation of disease or certain poisons, revolt and set up a spasmodic independent action, as, for instance, the spinal nerve centers in tetanus, or under the toxical effects of strychnia?

The emotions, I am satisfied, have their appropriate nerve cells, although they are not distinguishable. When affected by disease they respond inordinately or violently and spasmodically, or not at all, to the impressions made

by the senses or the ideas. The intellect presents no marked or obvious signs of disease; but a morbid state of the emotions has established a chafing, dominant, tyrannizing power over it, and destroyed the harmonious relations. Without a loss of knowledge, in the excitement and conflict, there is a loss of relative power and control. Reason is not held in permanent and constant subjection, as is the case in fixed delusion; but she is repeatedly assailed, and often overcome, by the riotous outbreaks of the disordered emotions.

These nerve cells also may lose their sensibility and energy and not respond to the objects or idea of friendship and love. A cold indifference takes the place of the domestic affections and of social geniality. The sufferer will sometimes appreciate the change and deplore the loss of love for relations the nearest and formerly the most dear. The intellect is not impaired to an extent which prevents it from recognizing the disaster which the feelings have sustained. Again, overstrained, or by some failure of nutrition and repair, they may become exhausted.

Melancholy is likely to result from this state. The feelings of hope and courage are paralyzed. Darkness and despair brood silently in "ambition's airy hall."

In all these different conditions, and especially in medico-legal investigations, we must, however, keep in view the fact that the mind itself is a unit—a complex entity made up of the united energies of different organic faculties. The intellect may be utterly incapable, under the influence of disordered emotions, of doing what it might perform, or of declining what it would reject in a healthy condition of the feelings. With regard to the action of the mind, therefore, I think we may adopt this as a maxim: If it be disordered in a part it is impaired in the whole.

The mental disorder is the result of patholgical change or congenital defect of the somatic structure. It may exhibit itself mainly through either the intellect or the feelings, though it is generally manifested in both.

When insanity is pleaded to avoid responsibility for crime, if there be no mark of lesion of the intellect, and especially if it be that form of emotional insanity which is characterized by a perversion of the moral sentiments, great care is required to distinguish between the effect of disease and the result of natural depravity and habitual vice. We must satisfy ourselves of the existence of an abnormal physical condition, as the cause of the mental obliquity. The competent physician can generally do this with as much certainty as appertains to the diagnosis of diseases generally.

The complete change in the character and habits of the individual compared with his former self; the variable and

easily accelerated pulse; capillary congestion, or a sickly pallid hue of the skin; the noticeable excited play of the emotions in conversation, manifested by the quickly coming tear, or tremor of the muscles of the face; suspicions and jealousies, which frequently amount to temporary delusions; unreasonable views and impracticable schemes inconsistent with the previous mode of thought and action; a mixture of religious emotion with outrageous immorality; impatience, restlessness and instability of purpose; insensibility to shame on being detected in shameful or criminal acts; and, in some cases, a periodical exaggeration of all the usual symptoms, resembling in this respect some of the more clearly pronounced forms of insanity, are some of the symptoms of this form of mental disease. Sometimes the pulse is so frequently and easily disturbed that we know there is disease somewhere; and the mental change and irregularities refer it to the brain. At length, after years perhaps of more or less unsound and disturbed mental condition, the intellect becomes more manifestly impaired, and the disease at last settles down into chronic mania or dementia.

Mania transitoria is another scape-goat of crime. Nevertheless, instantaneous outbreaks of mania of brief duration in certain physical conditions may occur; and in no cases does the law require the aid of medical knowledge more than in these. The public will be incredulous and uncharitable towards the unfortunate person who may have committed a fatal violent assault while in this transient aberration.

The mania has been too brief to impress itself upon the observation of the community, or more than a very few individuals. It is also rare and exceptional to the common familiar phenomena of insanity.

Since the well known conflict in the expert testimony in the Andrews case, the medical literature of our own country and Europe has been pretty well searched for cases of transitory mania, and only between seventy-five and one hundred cases have been found. It does not properly form any distinct class of insanity. There is no uniformity in its character and duration, and no cognation in its causes. Connected with criminal offenses, it is more likely to be pretended than real, or nothing more than unrestrained passion. When it really occurs, the instantaneous outbreak may take place as the first decided manifestation of a hitherto unobserved incubation of mental disease. In such a case, the insanity is not cured by killing a fellow-being.

It may occur in epilepsy, taking the place of the ordinary spasm of the motor nerves. In this case we may have a

real transitory mania, coming on as suddenly and passing off as quickly as an ordinary attack of epileptic convulsions, with the usual loss of consciousness during its continuance. It may take place in the puerperal state, the cause being obvious. The maniacal attack here is sudden, but does not pass off so quickly as to deserve the name of transitory.

Injury of the peripheral extremities of the nerves may bring on a sudden attack of mania.

The son of an English gentleman, on being called to his breakfast, was heard to get up, but he did not leave his room. The father went to his bedroom, where he found him in a maniacal state. He put him to bed, when he became calm and sane. Getting up again, he became crazy, and was unable to dress himself, as before. A physician was called in, who, learning these facts, and that he had been in swimming the day before, commenced his examination by pressure on the soles of the boy's feet; when at length he brought on another attack of the mania. He discovered a piece of silex or a minute pebble imbedded in the skin of the sole of his foot, which he extracted, when the boy arose, dressed himself, and was found to be entirely cured of his transitory mania. Thus we see how slight may be the cause, how sudden the attack, how brief the duration, how varied the form, and how simple the cure of mental derangement.

Now, as I have before observed, these instantaneous outbreaks of mania, or *mania transitoria*, belong to no class of insanity. They are only anomalies or incidents which may occur in connection with some more permanent disease, or from a wound or a traumatic affection of the nerve. In the case of the boy referred to, the reflex irritation, instead of spending its force on the spinal ganglia, producing tetanus, as such injuries sometimes do, passed on up to the supreme nerve centres, causing mania. Says Caspar: "There is no such peculiar species of mania—no so-called mania transitoria. This unscientific and dangerous term ought not to be employed in practice, and the investigation of each individual case, according to the general diagnostic criteria, renders it wholly superfluous."

I do not think these cases are generally difficult of diagnosis when they become subjects of medico-legal investigation. The criminal act is so inopportune, as to time and place; there is such an absence of provocation, preparation and motive, that the real cases of this kind are generally readily recognized. There is no insane cunning or ability to plan in this form of mania. The subject of it is delirious, or a furious raving maniac for the time being. Consciousness and memory are in abeyance, and his acts,

in their direction, bear no evidence of consciousness and design. The cases which have given rise to dispute and doubts are based upon a theory adopted as a defense to criminal prosecutions. For instance, in the case of General Cole, there was not a single element of genuine transitory mania. There was provocation, preparation, seeking and selecting the offending person, and the successful execution of the deed, without any undirected promiscuous demonstration of violence. He was found to be sane, just before and just after the killing. The foreman of the jury stated that "they found the prisoner to be sane at the moment before and the moment after the killing; but they were in doubt as to his sanity at the instant of the homicide. The Judge said that they must give the prisoner the benefit of the doubt, and, thus instructed, they rendered a verdict of acquittal." So, in the case of Mrs. Fair, there was an avowed provocation; the threat; the preparation; the choice of time and place; the selection of the threatened person in a crowd, and the execution of the deed, without any general demonstration of undirected violence, or any excess of violence beyond what was necessary to accomplish the act of killing. These cases do not bear the features of transitory or instantaneous mania.

There should be a change in our laws respecting the criminal insane. Upon the acquittal of a person charged with murder, on the ground of insanity, the killing being admitted or proven, it should be the duty of the Judge trying the case to commit such insane homicide, regardless of his mental condition at the time of trial, to an asylum for the insane, where he should be securely kept. And there should be no authority vested in any officer of the asylum to discharge this class of patients, by reason of their apparent recovery or sanity. Such a provision of law would render the plea of insanity less frequent, and the community more secure.

I know of nothing further behind the age than the mode of obtaining medical knowledge and opinions in our courts of justice. There is no certainty of reaching correct and scientific results by the method practiced.

It is not so much the fault of our profession as it is of the law. The reasons are:

First—The selection for experts of partisans, instead of competent and impartial physicians.

Second—The inadequate opportunity generally given the physician for the investigation of the case.

Third—And above all, the mode of examination by hypothetical questions, it being impossible for the medical witness to fairly present his opinion to the Court and jury by this mode of putting questions.

In reference to the first proposition, I assume it will be admitted that medical witnesses are too often selected on account of the bias they are known to entertain towards the side on which they are called to testify, rather than for their professional qualifications. *Ex parte* in the beginning, they necessarily become more and more so in their efforts to sustain a prejudicial and pre-expressed opinion. In the cross-examination the bias becomes so obvious that their testimony justly loses the respect and weight which the opinion of a just and competent expert ought to carry with it. This evil must necessarily continue as long as the medical witness is procured by counsel, for the lawyer is expected to select such witnesses as will give evidence favorable to his side of the case. He will descend, if need be, in the scale of professional standing until he reaches a point where, as effecting his purpose, he is sure the evidence will be right, even though the witness be wrong.

Every facility should be afforded the medical expert for a thorough investigation of the case upon which his opinion is required. In some instances the most fearful responsibility rests upon him. The life of the individual on whose mental condition he is to decide, in a great measure, depends upon his opinion, while justice waits upon his decision as the lamp to her own. The physician himself, then, he being the best judge, should be authorized to require all the obtainable information and evidence he might deem necessary to the fullest possible understanding of the case in question. A more awkward and faulty way of arriving at correct knowledge could hardly be devised than that by which professional information is sought to be obtained from medical witnesses in the Courts of the United States and England in cases of disputed mental condition. In almost every important criminal case there are two sets of more or less contradictory facts, produced respectively by the prosecution and the defense, which form the basis of a series of hypothetical questions, to be answered upon the presumption that all the supposed facts are true. The inevitable consequence is that there is an apparent contradiction and a real confusion in the physician's testimony. Even if the investigation has been full and satisfactory, and the conclusion of the expert, as to the party on trial, be correct and well supported, his opinion in this way cannot possibly be presented to the Court and jury in a clear and logical manner. It must of necessity be little better than an incoherent mass of incongruities, partaking of the contradictory character of the supposed facts. The absurdity of this practice was forcibly illustrated in the case of David Montgomery, tried for murder in Rochester, New York, in

1871. In this case the distinguished Dr. W. A. Hammond was called by both the people and the defense. Both sides put to him their hypothetical questions, based upon such portions of the testimony as favored them respectively, which he answered categorically. The consequence was, notwithstanding the great learning of the witness and his familiarity with these trying situations, there was apparently a dual opinion; or, as a recent reviewer remarks, "a striking conflict between the answers given by Dr. Hammond to the prisoner's counsel and those given to the District Attorney." The fault cannot justly be found in so able, adroit and self-assured an expert as Professor Hammond. It is in the sleight-of-hand, dissolving-views style in which the case was presented to him. This case affords a fair sample of the manner in which such trials are generally conducted with reference to medical testimony. The elements which make up the whole case are separated and scattered, and the medical expert is not permitted to bring them together and present them in the concrete.

To remedy this great evil, which so often results in the perversion of justice and the degradation of our profession, should constitute one of the objects and efforts of every organized medical association.

I heartily concur in the suggestion of one of my predecessors, that medical experts should be appointed by the Court, and selected for their professional fitness, their personal integrity and freedom from bias. Ample time and means should be had for investigation. And their opinions and conclusions should be reported by the Court in full in writing. This would insure something like a scientific presentation of the subject. It would give something comprehensible and tangible to act upon and refer to. To be sure, the defendant may call the same or other medical witnesses. This is his legal right. It is not to gain an advantage over the unfortunate criminal or prisoner that this change of procedure is advocated; but to reach, if possible, some method of investigating a question of transcendent importance in a scientific way, and of communicating the result in an intelligible manner, to render more valuable and reliable aid to the law and to justice in determining medico-legal questions.

Our medical jurisprudence of insanity should be raised from the old rut of the English common law. It belongs to the distant past, and has not kept pace with the science upon which it is founded. The German code and practice are far in advance of it. The medical witness there has a scope and authority in the Courts similar to what I have suggested as an improvement here.

Witness the results: The Courts there are relieved from much of the perplexity, haggling and blundering which characterize our trials of disputed mental condition in connection with crime; and they are storing up a vast treasure of forensic medical literature from the actual experience and decisions of their own official experts. The reports of Casper alone have enriched the literature of forensic medicine more than all that has been preserved, save upon chemical questions, of the testimony of English and American medical witnesses during all time.

Excepting Balfour Brown's feeble imitation of Dr. Ray's medical jurisprudence of insanity, I would not presume to speak disparagingly of the great works of England on medical jurisprudence. But, in relation to insanity, they are great in the record of famous cases and in the remarkably uniform and now antiquated opinions of her learned and illustrious Chancellors, from Sir Matthew Hale down, rathe than in the medical lore and forensic experience of her no less learned and illustrious physicians.

So important do I regard this question, so well satisfied am I of the unfitness of our laws on this subject, so certain am I that a great public good could be accomplished by adopting a different method from that now practiced, of obtaining the opinions of physicians in our courts, that I embraced this occasion to recommend that another standing committee be provided for in the constitution of our society, to be designated as the Committee on Forensic Medicine.

Finally, my medical friends, as I was absent when the closing festivities of our last meeting inaugurated the present officers of this society, I must take this opportunity to express to you my acknowledgment and gratitude for the token of your regard which my present position implies.

Special sciences are not understood nor correctly appreciated by the general community. And, at best, popular favor is but a bubble upon the ocean of life—raised in a moment, and as quickly destroyed by the accidental breeze. It is, therefore, in the respect and esteem of his professional brethren that the physician receives his most grateful and valued honors. And yet it is not those who fill the necessary offices in our society organizations, who occupy the most honorable distinction. The highest eminence is self-acquired and independent. It is open to all, and is gained by those who, laboring most faithfully and unselfishly, contribute most ably and liberally to the science, the elevation and the objects of their profession.

At the close of the address, Dr. Logan moved that the thanks of the association be returned to the President for

his able address, and that it be referred to the Committee on Publication.

Dr. R. Beverly Cole said that he not only cordially indorsed the motion of Dr. Logan, and in view of the great importance of the matter treated, as well as the interest taken in it at present, he offered as an amendment that 2,500 copies be printed for distribution among the faculty of the State, at the expense of the society.

The amendment and motion were both carried.

On motion of Dr. Babcock, it was resolved that just previous to the afternoon adjournment, the delegates from each county should name one of their number to compose a committee on nomination of officers for the ensuing year.

Dr. Logan asked the indulgence of the society, and requested that a paper prepared by him be referred to the Committee on Publication and that he be excused from reading it, with the understanding that he should furnish the press with an abstract of its contents, for the benefit of the people, for whom it was principally prepared.

The request was granted.

A letter was presented from Dr. A. B. Stout, the treasurer of the association, expressing his regret that he would not be able to be present, and accompanied with his financial report for the year, which was, on motion, referred to a committee consisting of Drs. Logan, Curtis and Grover for examination and report.

The names of the following new members were reported by the Board of Censors as having the necessary qualifications, and they were duly elected:

E. T. Wilkins, Marysville; Memphis Medical College, Tennessee, 1861.

Norman S. Hamlin, Yuba City; Medical Department University of Iowa, 1860.

S. J. Rogers, Marysville; Berkshire Medical College, 1848.

B. K. Reid, Stockton, University of Pennsylvania, 1846.

C. C. Harrington, Marysville; Berkshire Medical College, 1846.

J. H. Clark, Yuba City; Bellevue Medical College, 1872.

J. H. Belton, Colusa; New Orleans School of Medicine, 1861.

Thomas Dobbins, Yuba City; Missouri Medical College, 1859.

P. H. Pietryzyeki, Stockton; University of the Pacific.

J. W. B. Reynolds, Sacramento; St. Louis University, 1853.

Charles Francis A. Nichell, Napa; Buffalo University, 1867.

F. C. Durant, Sacramento; University of Vermont, 1868.

G. A. White, Sacramento; Jefferson Medical College, 1869.

William A. Russell, Visalia; Jefferson Medical College, 1847.

John T. Crook, San Francisco; College of Physicians and Surgeons, New York, 1857.

P. W. Randle, San Quentin; Medical Department of Shurtleff University, Alton, Illinois, 1840.

J. B. Cox, Sonoma; Long Island College, 1869.

H. A. Dubois, San Rafael; Yale College, 1861.

REPORTS OF COMMITTEES

Being next in order, and Dr. Henry Gibbons, of San Francisco, Chairman of the Committee on Practical Medicine, not being present, no report was received. The report on Surgery was presented by Dr. G. G. Tyrrell, chairman of the committee, and with a supplementary report upon the same subject by Dr. Kirkpatrick, of Redwood, were referred to the Committee on Publication, without reading. The report on Obstetrics being next in order, Dr. R. Beverley Cole, chairman of the committee, stated that his report was not yet ready for presentation, but that he would prepare it in time for publication by the committee if such permission were granted him. On motion, the request was granted. Dr. Cole then occupied the time which would have been consumed in reading the report with an interesting exhibition and explanation of a number of instruments used in the modern practice of obstetrics, which was listened to with undivided attention.

INVITATION.

At this point, an invitation was received from Governor Booth to the association, inviting them to a reception at his residence in the evening. The invitation was, on motion, received and accepted.

Invitations were also received from Dr. G. A. White to visit the County Hospital; and from Dr. A. B. Nixon to visit the Central Pacific Railroad Hospital, both of which were accepted.

The report of the Committee on Indigenous Medical Botany, was next read by Dr. W. P. Gibbons, of Alameda, and was referred to the Committee on Publication. At the request of Dr. Whitney, Chairman of the Committee on Medical Education, he was granted further time to present his report. Dr. J. B. Cox, of Santa Rosa, read an interesting paper on Nosology, which was referred to the Committee on Publication. A communication was read from Dr. R.

K. Read, of Stockton, stating that he was unable to present a promised paper, on account of a scrap-book which contained his data having been mislaid. Dr. J. B. D. Reynolds, of Sacramento, read a paper upon Sterility, which took the usual course. On motion of Dr. Logan, Dr. Ames, of Boston, who was present, was elected a member by invitation, who upon taking his seat briefly returned his thanks for the honor conferred upon him.

The Society then adjourned until half-past seven o'clock in the evening.

EVENING SESSION.

A very large audience, besides the membership of the association, assembled at the hour appointed for the evening session. The meeting was called to order by the President, who introduced Dr. E. M. Curtis, of Sacramento, who delivered an able lecture on "How we Become Deaf," treating the subject in a popular method, and divesting it of all technical expression, and thus rendering it of extreme interest to all who heard it. The thanks of the association were returned to Dr. Curtis, and he was requested to hand his production to the Committee on Publication.

Dr. F. W. Hatch, of Sacramento, next read an interesting paper upon "The Reciprocal Relations existing between Physicians and the Public," which was listened to intently, and loudly applauded. The usual disposition was made of the paper.

The association then adjourned until ten o'clock the next morning.

The members now proceeded to the residence of Governor Booth, where a large assemblage of ladies and gentlemen were collected. After presentation of the members of the Society to his Excellency, music and dancing were enjoyed and a collation served. The affair was most enjoyable, and prolonged into the wee hours.

SECOND DAY.

April 10.—The Society was called to order by the President at 10 A. M. The minutes of the previous day were read, amended and approved.

The Board of Censors reported that Dr. John Millington, of San Francisco, a graduate of the Medical College of the Pacific, 1871, and Dr. Asa Clark, of Stockton, were entitled to membership, and they were elected.

Dr. D. B. Hoffman, of San Diego, telegraphed that he would be unable to attend the session of the society.

A communication was received from Dr. W. Fitch Cheney, of Chico, transmitting his paper on the Deer Creek,

Tehama county, epidemic, and stating that he would be unable to be present at the session.

On motion, the Treasurer was authorized to pay all bills that were audited by the committee.

REPORTS OF COMMITTEES.

Dr. Henry Gibbons, Sr., Chairman of the Committee on Practical Medicine, read the report of the committee, and it was referred to the Publication Committee.

Dr. J. P. Whitney, of San Francisco, Chairman of the Committee on Medical Education, submitted a report, which he read.

President Gilman, of the State University, being present, was invited to a seat in the Convention. He accepted the invitation in a neat speech.

Dr. H. A. Du Bois, of San Rafael, read a paper on "Nervous Exhaustion" as a cause of phthisis *sine* tuberculosis.

Dr. L. C. Lane, of San Francisco, read a paper on "Hernia."

Adjourned till 2 P. M.

AFTERNOON SESSION.

At 2 o'clock the society re-assembled.

The paper of Dr. J. F. Montgomery was referred to the Committee on Printing, without being read, as the author was absent. The subject is "The Treatment of Typhoid Fever."

Dr. G. W. Graves, of Petaluma, read a paper on the "Treatment of Dysentery."

THE CONSTITUTION ADOPTED.

Dr. Logan said that in order to facilitate matters and enable the Committee on Nominations to report, he would present the report of the Committee on Constitution and By-laws. The Constitution was printed in the last volume of the transactions, but it was not adopted. The amendments recommended by the Committee were principally to provide for one permanent and two assistant secretaries and to define their duties. An amendment was also offered to substitute the third for the second Wednesday in April as the time of meeting and to leave the *place* where to meet an open question, but to be determined by the Society annually. The Constitution as amended was adopted.

Dr. J. F. Morse, of San Francisco, offered the following resolution.

Resolved, That the State Medical Society of California, desiring to see some system adopted by which a high and liberal standard of medical education and graduation may

be secured, have heard with great pleasure that our State University contemplates the organization of an independent Board of Medical Examiners, and we do hereby express the hope that such a Board may be appointed on a foundation so independent that upon their certificate of qualification a diploma of the University will be granted and conferred, irrespective of the school or source of instruction in which the applicant has been educated.

After considerable discussion the resolution was laid on the table for one year.

The Committee on Nominations submitted their report which was accepted, and the Secretary was instructed to cast the ballot of the society for the following members, who were elected as officers for the ensuing year:

For President—

T. H. PINKERTON, M. D.....Alameda Co.

For Vice Presidents—

J. M. BROWNE, M. D.....Solano Co.
C. A. KIRKPATRICK, M. D.....San Mateo Co.
F. W. HATCH, M. D.....Sacramento Co.
H. M. BIGGS, M. D.....Santa Barbara

For Permanent Secretary—

W. T. WYTHE, M. D.....Sacramento Co.

For Assistant Secretaries—

A. B. CALDWELL, M. D.....Yuba Co.
T. ROSS, M. D.....Woodland

For Treasurer—

J. E. OATMAN, M. D.....Sacramento Co.

For Board of Censors—

G. G. TYRRELL, M. D.....Sacramento Co.
G. W. GRAVES, M. D.....Sonoma Co.
E. A. STOCKTON, M. D.....San Joaquin Co.
L. ROBINSON, M. D.....Colusa Co.
W. S. THORNE, M. D.....Santa Clara

On motion of Dr. Tyrrell, the salary of the Permanent Secretary was fixed at $100 dollars per annum.

On motion, it was ordered that 2,500 copies of Dr. Hatch's address be printed in pamphlet form, and distributed.

Dr. Wilkins, of Marysville, read a paper on insanity in California.

NEW MEMBERS.

The censors reported Charles E. Brigham, of San Francisco, Charles Fisher, of Sacramento, R. H. McDaniel, of Marysville, and Joseph Flint of Lincoln, for membership, and they were elected.

Medical Inspector J. M. Browne, U. S. N., read a paper on the Verrugas and Oroya, ferns of Peru.

Dr. Toland addressed the Society on Skin Grafting, and Re-section of the Elbow-joint.

Dr. F. W. Hatch, Jr., was elected a member.

Dr. Brigham exhibited specimens of bones which he had collected during the Franco-Prussian war, and which illustrated various fractures made by gunshot wounds.

Dr. Paramore not being present, his paper on Cerebro-spinal Meningitis, was referred to the Publication Committee.

Dr. Logan submitted the report of the Committee on the State Botanical Garden, and it took the same reference.

Dr. Logan, of the committee appointed to examine the report of the Treasurer, reported the same correct, and it was filed.

The supplemental report of Robertson, of the Committee on Surgery, was read, and referred to the Publication Committee.

By request, Dr. Pond explained the workings of a surgical instrument he had invented.

On motion of Dr. Cluness, the President was authorized to grant credentials to such members as desired to go to the National Medical Convention, which will meet at St. Louis.

Dr. Gibbons read the paper of Dr. Cheney, on the Deer Creek epidemic.

A paper from Dr. Stout was received and referred. It was in relation to an operation on an aneurism performed some twenty years ago. The subject died recently, and on a *post-mortem* examination the result of the operation could be seen.

Dr. Morse offered the following resolution, which was adopted after some discussion :

Resolved, That in the annual meetings of this Society held hereafter, the respective chairmen of the various standing committees are requested to prepare and submit a synopsis of their several reports, and that the reading of such synopses be regarded as a fulfilment of the requirement of Section 1 of Article VI of the Constitution.

Adjourned, to meet again immediately after the conclusion of the lecture by President Gilman, of the State University.

EVENING SESSION.

Immediately after President Gilman's lecture, the Society again met at Pioneer Hall.

Dr. Henry Gibbons asked if the Society had not made a mistake in deciding to hold the next meeting in San Francisco?

[It was previously decided that when the Society adjourned it should do so to meet at San Francisco next year.]

The vote was reconsidered by which it was decided to hold the next meeting in San Francisco.

A motion was then made that the meeting be held in Sacramento, which, after some discussion, was lost, and San Francisco decided to be the place of holding the next meeting.

Dr. Oatman offered the following resolution, which was adopted:

Resolved, That it is the duty of, and we hereby recommend to the Legislature of California to pass a law making it a misdemeanor for any person, for any purpose whatever, who is not a graduate of some institution of learning authorized by law to confer the degree of "Doctor of Medicine," who shall place before his or her name, in any manuscript, label, wrapper, card, handbill, circular, newspaper, pamphlet, magazine, book, or any advertisement, the word "Doctor," or the abbreviation M. D. or Dr., or any others signifying directly or constructively that the person is a graduate of such an institution, or who shall authorize or sanction the same by others in his or her interest; and that any person found guilty of such misdemeanor shall be punished by a fine of not less than — dollars, or imprisonment for not less than — years, or by both such fine and imprisonment.

Votes of thanks were returned to the Committee of Arrangements, to the retiring officers, Governor Booth, and to the Sacramento Medical Society, after which the Society adjourned.

A sumptuous banquet was given the Society by the Sacramento Society for Medical Improvement, at which Gov. Booth, President Gilman, and the Mayor of Sacramento were invited guests. The toast list comprised twenty-two sentiments, which were responded to, and the assemblage broke up at a late hour.

Meeting of the California Pharmaceutical Society.—Report of the Trustees of the College of Pharmacy.

The forty-second regular meeting of the California Pharmaceutical Society was held last evening at the rooms, 728 Montgomery street, John Calvert in the chair. The Board of Directors submitted a short report, which was accepted.

The principal feature of the meeting was an informal report of the Trustees of the newly established

COLLEGE OF PHARMACY,

Giving a general history of their past work and a short sketch of the plan for future operations. The lecture-room

is to be provided with the most approved apparatus for the various demonstrations, physical and chemical, which are necessary to the proper instruction of young apothecaries, conspicuous among which will be the lecture counter. This is provided with two gasometers of a novel and exceedingly compact and convenient form, and the usual trough for the filling of bell glasses with the gas or gases whose peculiarities the lecturer may wish to exhibit. The proper performance of the business of the pharmaceutical chemistry demands in many cases somewhat complicated apparatus, and it is the intention of the professors to fully demonstrate the actual working of such by exhibiting it in operation before the various classes. An inspection of the work already completed and in progress, is sufficient proof that the management of the affairs of the College is in competent hands, and that every effort will be made to insure the thorough and practical education of pupils. A magnificent donation of over one hundred fine chemicals has been lately received from the firm of Powers & Weightman, of Philadelphia. A large assortment of glassware and apparatus is now due from the East, which will complete the stock of apparatus needed. The prospectus of the College is already in the hands of the printer and will be soon issued, when the lectures of the institution will commence. After some further discussion upon matters important only to the trade, the meeting adjourned till the second Wednesday in May.

Book Reviews.

LESSONS IN PHYSICAL DIAGNOSIS. By ALFRED L. LOOMIS, Professor of The Institutes and Practice of Medicine in the Medical Department of the University of New York; Physician to Bellevue Hospital, etc., etc. Third edition, revised and enlarged, pp. 240. New York, Wm. Wood & Co.; San Francisco, A. L. Bancroft & Co.

This work is handsomely bound in cloth, and presents an excellent typographical appearance. The author has not only realized his wish in presenting an invaluable work to his class, but has also furnished one of great value as a book of reference to the general practitioner. The simple and concise manner in which the subject is treated, and the ample illustrations which accompany every department, will

be particularly commended by the student. Brevity and terseness are much to be admired in medical authors of the present day. Many have even fallen into the error of writing such voluminous books that the time consumed in reading them is of more value than the actual information obtained. We may say of this work that it is decidedly *multum in parvo*. However, while we admire brevity and terseness in an author, we do not wish it to be inferred that we would advise the student to confine himself in his studies to compendia or synopses of medical works, but rather to strive to compile for himself synopses of the regular text books, whose value may be greatly enhanced by the possession of books as happily arranged as the one before us.

The work is divided into twenty lessons, fifteen of which are devoted to the topography of the different parts, and the remaining five to chemical analyses of the urine, and to the various instruments necessary as aids in physical diagnosis. C. M. B.

SURGICAL DISEASES OF INFANTS AND CHILDREN. By M. P. GUERSANT, Honorary Surgeon of the Hospital des Enfants Malades. Translated by R. J. DUNGLISON, M.D., pp. 351. Philadelphia, H. C. Lea; San Francisco, A. Roman & Co.

The subscribers to the *Medical News and Library* for 1871–72, will be familiar with the 73 chapters composing this eminently practical book issued in monthly parts with the above mentioned periodical. The author disclaims any idea of "embracing the entire domain of infantile surgery," and has taken for his essays such cases as have served for clinical lectures during 20 years experience in the large hospital of which he was surgeon. He has evidently sought to give only such practical suggestions as occurred to his thoroughly disciplined mind. To properly review the book would be to republish it, and we can only urge on those whose fortune it had not been to subscribe to the excellent periodicals monthly, quarterly and semi-annually issued by Mr. Lea, to peruse and hold as a ready work of reference, the little volume whose title is given above.

In this form have been issued several of our best text-books, and while we are opposed to the publication of important works in such a rambling way, on general principles, we must confess that the series given us from the house of Lea is an exception to the rule that the best works are issued complete.

THE

WESTERN LANCET:

A JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

FOR MAY, 1873.

Surgery.

ART. I.—*Plastic Surgery.* By CHARLES B. BRIGHAM, M.D., San Francisco.

I.

Of all the operations which ancient or modern surgery can boast of, there is none which so nearly realizes the object of the art, or which gives so much satisfaction to the patient or to the surgeon, as that of restoring lost parts of the body. In the lower forms of life the repair and restoration of entire extremities is possible; the eye may be restored in the crab, the leg or tail to the newt, and in general, the lower and simpler the animal life the more ready and perfect the restoration. Not so, however, with human beings; their means of repair are very limited; small portions of the skin, if lost, are replaced by a substance inferior in many respects to the original; cartilaginous tissue is replaced by a fibrous callous, while the cicatrix of tendons becomes identical with them only after it has undergone many changes through lapse of time. The nails, hair and bone have each their special conditions under which they are reproduced, and the epidermis and epithelium seem to be the only substances that are freely regenerated. The

restoration of skin by plastic surgery may be accomplished in three ways, viz: by transplanting:

1st. Small bits of the epidermis, fixing them in the raw surface of the tissue to be repaired.

2d. Wholly detached portions of skin of greater or less size.

3d. Portions of skin attached to the neighboring tissue only by a small isthmus called the pedicle.

The first process was presented to the medical profession a few years ago, by M. Reverdin, of Geneva. He discovered that small pieces of epidermis, when inserted among the healthy granulations of an ulcer, and kept in place, would live and grow and form little islands of skin, becoming the centres whence cicatrization of the entire granulating surface was accomplished.

In a case reported in 1870, by Mr. Young, of St. Bartholomew's Hospital, in London, small bits of skin were planted in the granulating surface of an ulcer; six weeks gave them the size of half a dollar, four weeks that of a quarter, while a fortnight that of a five cent piece.

Again, a gentleman connected with the same Hospital made the following experiment:*

"On Saturday, December 17, 1870, an arm was amputated at St. Bartholomew's Hospital, at 2 P. M.; at 6 P. M. Mr. Cumberbatch entered the theatre, four hours after the operation, and took from the limb, which was then quite cold, a portion of integument. He cut it up into small pieces, which he transplanted in the usual way. After bandaging the part, he opened the wound on the fourth day and found that union had taken place, and that cicatrisation was going on favorably from the various points; the case terminated favorably."

The second process, that of transplanting wholly detached portions of skin, has been hinted at in surgery for many years; ends of fingers, noses and ears, completely cut off, having been successfully united to the original members by applying them immediately after the injury. Sixteen successful cases of this sort are reported by Hoffacher, the

*Holmes System of Surgery, Vol. 5, p. 591.

surgeon officially appointed at Heidelberg to dress the wounds from duels among the students.*

While at London, in the spring of 1872, I had the opportunity of seeing at one of the hospitals the perfect union of a finger which had remained during nineteen minutes completely detached from the hand near the second joint.

Chelius mentions the case of a student, who, having his nose cut off by a sword, re-applied the part nearly an hour after the accident, and it re-united perfectly. These striking hints were not made use of, however, in plastic surgery until recent years, when Ollier in France, Bünger in Germany, and among others Toland, in our own country, made successful experiments with pieces of skin taken from different parts of the body, and applied to the granulations of wounds or ulcers. Bünger relates "a case of partial success in the formation of a new nose on a lady by a piece of integument completely cut away from the thigh."†

During the Franco-German war, in the winter of 1870, a patient came under my charge suffering from the loss of an eye and lower eye-lid, from a gunshot injury; a successful attempt was made to restore the lost lid by a flap of skin taken from the temple, according to the third process. A fistulous opening into the lachrymal duct remained, however, and on the third of January, 1871, I took a piece of skin half an inch square from the breast of his room-mate,‡ and placed it in the wound over the fistulous opening; it was hardly a fair trial, and the same cause that made the flap refuse to unite over the fistula, had its effect upon the bit of skin, and it perished. Shortly afterwards the irritation caused by the dead tissue was such that the borders of the wound took on an increased action to get rid of it, and thus became united.

Alphonse Guérin, in an article published in 1866,§ speaks of this second process as a well established fact, and calls it *heteroplasty*; at the same time he jestingly alludes to

*Sédillot et Legouest, Médecine Opératoire, V. 2, p. 288.

†Gräfe and Walther's Journal, Bd. iv, p. 569.

‡Quelques Observations Chirurgicales, Brigham, p. 13.

§Dictionnaire de Médecine et de Chirurgie Pratiques Tome iv, p. 222.

the idea of Van Helmont, that on the death of the individual from whom the bit of skin was taken, the detached piece would die also from sympathy.

The English surgeons do not seem disposed to practice this operation. Holmes Coote, in speaking of the re-union of completely sliced-off portions of the nose, ears, etc., says: "No such license can be allowed in plastic surgery; the flap must retain its connection to the adjacent living structure by a pedicle, which is to be severed only after complete union and cicatrization of the raw surfaces."*

At a recent meeting of our State Society, at Sacramento, Prof. Toland exhibited the colored drawings of a remarkable and successful case of plastic surgery, the operation having been made according to the second process.

The third process, that of transplanting partly detached portions of skin, has been practised from time immemorial by the Koomas of India. Their original method was to take a flap of skin in close proximity to the part to be restored. It is supposed that their invention became known in Europe by being transmitted to the Arabs and thence to the Spaniards and Sicilians. In the middle of the fifteenth century, a Sicilian named Branca conceived the idea of taking portions of skin remote from the tissue to be restored, and he operated often and successfully in taking the partly detached integument of the fore-arm. The idea is almost universal that Tagliacozzi, of Bologna, was the original inventor of this operation, and in the university of that famous city, a marble statue, holding a nose, has been erected to his memory. This Italian method of operating is resorted to now-a-days only as a matter of necessity; its tediousness for the patient is beyond description. It is, indeed, exceptional that enough skin cannot be found in the face to remedy a deformity of the nose, mouth or eye-lid—its tissue is so elastic that it can be put to the stretch with a very favorable result. The Indian method then is the oftenest employed in remedying deformities of the face from loss of integument. Another method, called the French, consists in rendering the skin less tense, and the edges of the

*Holmes System of Surgery, Vol. 5, p. 563.

wound better able to approximate themselves by subcutaneous division, or by cutting the skin in lines at certain intervals, and in leaving these lines gaping wounds to granulate. Those familiar with the operation of crimping a codfish can readily imagine the appearance of an extensive operation of this sort. It is astonishing to see how great a tension of the skin is sometimes relieved by a small incision practised in the right place. The French method finds itself usefully applied in many cases.

ART. II.—*Removal of Tongue and Lower Jaw.* By WILLIAM H. HINGSTON, M. D., L. R. C. S. E., etc.; Surgeon to St. Patrick's Department, Hotel Dieu.

[Read before the Medico-Chirurgical Society of Montreal.]

There are occasions when surgeons, in the exercise of their oft-times anxious functions, hesitate between allowing a patient to drag out a few months of pain, or attempting, even at the risk of cutting short existence by a hazardous and most formidable operation, to arrest the progress of a fearful malady, relieve suffering and prolong life. Such an alternative presented itself to me early in October last, and although at the time I shrunk from employing the knife, the result has proved, in a conclusive manner, the advisability of the procedure adopted.

An old man, William Murphy, aged 71, presented himself at the hospital in September, 1872; his general appearance was that of health; his countenance open; his complexion florid; his eye clear; his skin soft and ruddy. On a casual glance he had all the appearance of a hale, hearty, fresh old age; yet, on close inspection, an ugly looking cancerous mass was visible through the ever half-open mouth, which involved the whole sublingual region, extended along the lower jaw, from a little below the median line on the right side to the second molar tooth on the left, and eating away, in its progress upwards, the frænum and a considerable portion of the under surface of the tongue. This large, open, cancerous surface emitted an odor of a most offensive nature; the movements of the tongue were much interfered with; and speech, as a consequence, was indistinct; deglutition was painful and difficult; and pain of

a severe and lancinating character troubled him by day and disturbed his rest at night. He told me he had noticed a small pimple under his tongue in June last, which had been treated for some time by a neighboring practitioner, when a physician from a distance passing that way, recognized its true character, and suggested the patient's going to New York or Montreal, to have its removal undertaken. After some time he directed his steps hither, and placed himself under my care. On a careful examination of the extent to which the structures were involved, I told him the disease had so spread as to render necessary the removal of the greater part of the lower jaw and the whole of the tongue. He said he was prepared to submit to removal of the jaw, but he could not suffer the loss of his tongue, and urged me to remove the jaw, and to take from the tongue whatever seemed to be diseased. But believing, as I do, that partial removal of the tongue for malignant disease is objectionable, I was forced to decline a compromise whereby the original constitution and frame, "as from the Maker's hand," as Sir William Fergusson expresses it, "might be kept as nearly as possible in its normal condition." The patient now left the hospital. I cannot say I regretted his departure. Three days afterwards he returned, and urged me to proceed at once to the operation as I had proposed. Having explained to my patient the full extent and nature of the operative procedure, its immediate risk, its subsequent danger, its, perhaps, only temporary relief, the inconvenience to him of being thus mutilated, the loss of speech and of the power of mastication, I met with the same reply: "If I recover I'll be better without this thing, and if I die, thank God I am prepared for that too."

Never, during my professional experience, did I see a patient submit more cheerfully or courageously to an operation, the result of which neither of us could predict; and if, among the conditions favorable for operations, a tranquil, cheerful and hopeful disposition finds a foremost place, then would the patient in question, I was satisfied, withstand a mutilating, which, to most others of his years, would prove fatal.

Finding him in this satisfactory frame of mind, I supported him by kind and sympathetic encouragement. My own was strengthened by my colleagues, Drs. Beaubien and Munro, as well as Drs. Rottot, Dagenais, Grenier and others, who subsequently afforded me valuable assistance at the operation. I also had the advantage of the valuable opinions of Mr. Gascoyne, of St. Mary's Hospital, London, and of Dr. Fenwick, both of whom happened to visit the

hospital at the time, and both of whom considered the case to be one where an operation was justifiable.

On the twenty-seventh I performed the operation thus: Patient being placed under chloroform, with his neck well raised and head thrown back, I made a vertical incision, in the median line, through the lower lip, across the chin to the hyoid bone; another at right angles to the former, along the lower margin of the body of the inferior maxilla to the ramus; and a third, similar in direction, but of less extent, on the right side. The cheeks were separated from the jaw along the whole extent on both sides, and with them the levator menti, depressor labii inferioris, depressor anguli oris and platysma mioides, as far as the anterior margin of the masseter muscle, on the left side, and the mental foramen on the right. The knife was then passed within the jaw and made to sweep along close to the bone. The genio glossi and hyodei, genio hyo-glossi, myio hyoidei and digastrici were divided, after a piece of twine, previously passed through the tongue, had been entrusted to an assistant. The bone was then sawed through on the left side at the ramus, and at the right at the mental foramen.

The tongue now engaged attention. Drawn well forward, with the cord still through its tip, I divided its substance, and investing mucous membrane at its base, and passing the chain of the ecraseur through the aperture, divided the hyo-glossus and genio hyo-glossus of the left side. Notwithstanding the employment of the ecraseur, blood spouted from the cut lingual, but was readily arrested by a ligature.* The chain was then used in the same way on the right side. The advantage of dividing one side at a time was evident. Blood spouted from the linguals as if they had been divided with the knife, but the hemorrhage was arrested in one before the other was divided. The stylo-glossi, with any *debris* of mucous membrane, were divided with the knife, and the tongue was removed. There was very little loss of blood at the time, and not much oozing afterwards. The soft parts were brought into close approximation by interrupted sutures at short distances, and sufficient dry lint was inserted to keep the lower lip, chin and cheek from falling in. The patient was then placed in a prone position in bed. A couple of hours afterwards I proceeded to feed him. On opening his mouth and looking across the floor of lint, the whole epiglottis, from its broad, rounded upper extremity to its narrow thryoidean attachment, could be seen with

* The third or fourth time only I have used the ligature within the last six years, acupressure having always sufficed.

ease. It stood almost erect, and like a watchful sentinel, bending slightly, as is usual in ordinary respiration, over the aperture whose function it is to guard and protect. The elastic feeding tube attached to the stomach pump, pressing against the epiglottis, gave no trouble, produced no spasm, no effort at coughing, no resentment of any kind, but it permitted itself to be handled as if dispossessed of sensibility altogether.

The patient made a surprisingly rapid recovery. Union took place throughout the whole extent of the horizontal wounds, and throughout all but the most dependent part of the vertical incision, by first intention. The two ligatures came away on the ninth day, and on the following day he left the hospital, cheerful and happy, for his home near Rouse's Point. More than four months have now elapsed, and so far) there is no appearance of a return of the fell disease, for the removal of which the patient had submitted to the knife and saw.

He came to Montreal yesterday at my request. He presents a healthy appearance, swallows without difficulty, and evidently to good purpose, as his well-conditioned state attests. He is now before you, that you may see the inconsiderable deformity which now remains, and hear to what extent speech is restored, notwithstanding the entire ablation of the chief organ which gave it articulate utterance. —*Canada Medical and Surgical Journal,* Montreal, February, 1873.

Institutes and Practice of Medicine.

ART. III.—*Liquor Ferri Subsulphatis* in Diphtheria and other affections of the Mucous Membrane.* By V. J. FOURGEAUD, M. D.

Since 1856, the date of my paper on Dyphtheria, when the disease made its appearance in California, I have had repeated occasions to test the comparative value of various

*Made according to Dr. Squibb's process in American Journal of Pharmacy for January, 1860, page 33; or to that of Drs. Wood and Bache, in the United States Dispensatory, ed. 1870, which is essentially the same.

therapeutic agents in its treatment. However, for several years past (since 1868), I have relied principally on the liquor ferri subsulphatis, both for local application and internal administration, considering it the most valuable remedy we possess for that class of diseases characterized by exudations, vegetations, false membranes and abnormal formations and growths of a humid and superficial nature on the mucous membranes.

I apply the undiluted solution to the affected parts by means of a camel's hair brush or, better, of a piece of sponge, smaller than is generally used for throat probangs, attached to a suitable holder. The sponge should be well moistened with the solution, but should be pressed a little before using, to free it from an excess of fluid. In applying the medicated sponge, it should be gently rubbed on the affected parts. The peculiar action of the solution on the exudations or false membranes, will cause them to break up more or less completely, according to their different degrees of adhesiveness to the mucous membranes, as shown by the pieces adhering to the sponge, and, also, by their presence in the immediate expectoration. After each application (I make from two to four in the twenty-four hours, according to the exigency of the case) a mouth-full of water, as a gargle or swallowed, will relieve a certain degree of constriction which follows the use of the astringent. Far from complaining of pain, the patients experience decided relief after the use of the lotion. I consider this application by far the best I have ever used. It may be employed much more freely and with less danger than violent caustics, such as muriatic acid, nitrate of silver, etc., commonly resorted to. I know of no other which will break down so effectually all exudations, vegetations, pultaceous concretions, as well as the characteristic false membranes of dyphtheria, whether they are situated in the mouth, pharynx, or in the vagina, neck of the womb, or any other accessible parts of the mucous membrane. I have used it with gratifying success in many cases of sore throat, in scarlet fever, in stomatitis and aphthous affections of children. Three or four applications will generally free the buccal and pharyngeal cavity

of all vegetative or pultaceous growths or coatings. But when the disease takes the form of true dyphtheria, when the false membranes are well characterized, although the progress towards cure is generally evident after each application, it is, of course, slower. In these cases the medicated sponge should be applied every six hours, until the diseased surface becomes entirely free from false membranes. The sponge should be well cleaned after use.

With the local treatment, I prescribe the following for internal administration:

℞
Potassæ chloratis.....℈ii
Glycerinæ.....℥i
Quiniæ sulphatis.....℈i
Liquoris ferri subsulphatis.....gtt xx
Aquæ.....℥iii
M

Half a teaspoonful to a tablespoonful of this mixture, according to the age, to be taken every four hours.

I have found the small quantity of the liquor ferri subsulphatis, in the above recipe, sufficient for full remedial action on the system.* It dissolves the given proportion of quinine perfectly, and the mixture is of a beautiful color, clear and free from precipitate.

Besides being a good tonic, it has a decided effect on the morbid secretions of the respiratory tubes, and of the stomach and digestive canal. I have found it an excellent adjuvant in the treatment of croup and of many forms of low fevers attended with gastro-enteric debility, thickly coated tongue, and curd-like and other exudations or pultaceous patches of the mucous membrane.

While administering this internal treatment in connection with the local, strict attention should be paid to cleanliness, pure air and warm clothing, and the patient should take abundantly of milk, beef tea, plain nourishing food, and a stimulating beverage, such as brandy and water.

In thus recommending the use of the subsulphate of iron in the affections above mentioned (and I have said nothing

*The quantities of the subsulphate and quinine may undoubtedly be increased. However, I hold the following as a good maxim in practice: *Be sure to do enough, but be doubly sure not to do too much.*

respecting its high value as a styptic), I am aware that I could add strength to the subject by a detailed account of cases. But to give a few would be without much importance; to give all would occupy too much space. The experience of other practitioners would still be desirable to decide between the therapeutic value of this and the other agents they employ in the class of cases I have named—and it is to this test that I submit these remarks.

The following paper on the action of the Poison Oak is peculiarly interesting to practitioners on this coast, and all should read it:

ART. IV.—*On the Action of Rhus Venenata and Rhus Toxicodendron upon the Human Skin.* Read before the Boston Society of Medical Sciences, November 26th, 1872. By JAMES C. WHITE, M. D., Professor of Dermatology in Harvard University.

There are two species of plants growing abundantly in the United States, which have long been known to produce a so-called poisonous action upon the skin of persons touching or approaching them. These are *Rhus toxicodendron Rhus venenata,* a genus familiar to every one in the form of our common sumach, belonging to the family *Anacardiaceæ.* The former, *R. toxicodendron,* by earlier botanists called *R. radicans,* is a vine of very common occurrence, running over stone fences and along way-sides, or climbing trees to a considerable height, and attaching itself to these surfaces by lateral rootlets. It is popularly called poison-ivy, poison-vine, poison-oak, mercury. The other species, *R. venenata, Rhus vernix* of Linnæus, commonly known as poison-sumach, poison-dogwood, poison-elder, poison-ash, is a tree growing mostly in swampy places, and reaching the height of twenty feet or thereabout. The botanical characters of both may be found in all works on our native silva and flora, but as the descriptions are often very brief, and not sufficiently explicit to present a characteristic picture of the plants to the general reader,* and inasmuch as cases of poi-

*Extract from Gray's Manual:

soning by them are often the result of ignorance of their appearance, and many perfectly harmless plants are, moreover, avoided on suspicion that they are either one or the other of these, I prefer to give in this connection, in brief, the more graphic and popular descriptions to be found in the second edition of Bigelow's "Florula Bostoniensis," published in 1824, and long out of print, a book as fresh and charming still to lovers of wild-flowers, as when its gifted author, some sixty years ago, first gathered and painted them.

"*Rhus vernix.* L. Poisonous Sumach or Dogwood.—This species grows in swamps, where its fine smooth leaves give it the air of a tropical shrub or tree. The trunk is from one to five inches in diameter, branching at top and covered with a pale, grayish bark. The wood is light and brittle, and contains much pith. The ends of the young shoots and the petioles are usually of a fine red color, which contributes much to the beauty of the shrub. The leaves are pinnate, the leaflets oblong or oval, entire, or sometimes slightly sinuate, acuminate, smooth, paler underneath, nearly sessile, except the terminal one, from seven to thirteen in number. The flowers, which appear in June, are very small, green, in loose axillary panicles. The barren and fertile flowers grow on different trees. The fruit is a bunch of dry berries, or rather drupes of a greenish white, sometimes marked with slight purple veins, and becoming wrinkled when old. They are roundish, a little broadest at the upper end, and compressed, containing one white, hard furrowed seed.

"*Rhus radicans.* Poison-Ivy.—A hardy climber, frequently seen running up trees to a great height, supporting itself by lateral roots and becoming nearly buried in their bark. The leaves are ternate, and grow on long, semicylindrical petioles. Leaflets (3), ovate or rhomboidal, acute, smooth, and shining on both sides, the veins sometimes a little hairy beneath. The margin is sometimes entire, and sometimes variously toothed and lobed, in the same plant. The flowers are small and greenish white. They grow in panicles or compound racemes on the sides of the new shoots, and are chiefly axillary. The berries are roundish, and of a pale green color, approaching to white. Common about the borders of fields.—*June.*"

"4. *R. venenata,* D. C. (Poison S. or dogwood). Smooth or nearly so; leaflets 7-13, obovate-oblong, entire. Swamps. June.—Shrub 6°– 18° high.

"5. *R. toxicodendron,* L. Climbing by rootlets over rocks, etc., or ascending trees; leaflets 3, rhombic-ovate, mostly pointed, and rather downy beneath, variously notched, sinuate or cut-lobed—or else entire, then it is R. radicans.—*June.*"

I have prepared for illustration specimens of the foliage of both species, as well as of those plants for which they are sometimes mistaken, and to which in the popular mind, as their common names suggest, they bear the strongest resemblance. Purposely picked, as some of them were, while undergoing their autumnal change of color, it will be easily understood how many unwary gatherers of the painted foliage of this season may be enticed by the gorgeousness of their tints into a grievous acquaintance with their subtle virulence.

Rhus toxicodendron, or the poison-ivy, might readily be taken to be our common woodbine, or Virginia creeper

(*Ampelopsis quinquefolia*), both from the manner of its growth, locality, and brightness of its tints in the fall. It will be seen, however, at a glance, as its specific name implies, that the number of leaflets in the latter is five, while in the poison vine there are but three. This will always serve as a distinguishing mark between them, even if the difference in the shape of the leaflets be not observed, though the very great variation in form in those of *R. toxicodendron* should be carefully borne in mind.

Rhus venenata, the shrub or tree, bears some resemblance, as will be seen on comparison, in the shape of its pinnate leaves to those of the elder (*Sambucus*) or sumach (*R. typhina*, or *R. glabra*.) The serrate edges of these, as well as their more pointed tips, would be sufficient to distinguish them from this dangerous associate, even for persons not observant of less conspicuous details. At a little distance, however, the common sumach might readily be confounded with small-leaved specimens, and considerable variation in the size and breadth of the leaves of the poisonous species, as will be seen, prevails. It may be safely said, however, that several common and harmless shrubs and trees are feared and shunned for this a hundred times where the true poisonous sumach is once mistaken for other and innocuous plants by persons unacquainted with it; for, although by far the more virulent of the two, it is of far less common occurrence and grows in less frequented localities than *R. toxicodendron*.

The peculiar action of these plants upon the human skin has long been known and dreaded, but very few accurate descriptions of its effects are to be found either in books of medicine or botany. Writers have generally regarded the inflammatory affection of the skin provoked by contact with the plants, or their emanations, as of an erysipelatous nature, an opinion quite as erroneous as many of the fanciful notions prevalent concerning its character. Bazin, for instance, in his "Affections cutanées artificielles," says: "Je dois enfin vous dire quelques mots des singuliers effets produits par deux plantes qui croissent en Amérique, le Rhus radicans et le Rhus toxicodendrum. De ces arbustes se dégagent incessamment, si l' on en croit les auteurs, des émanations irritantes et toxiques au plus haut degré; malhuer à l'imprudent qui s'abandonne au sommeil sous leurs ombrages! son corps se couvre presque aussitôt d'un exanthème vésiculex, avec gonflement énorme, et en même temps se déclarent des symptômes généraux qui prennent la forme d'un véritable empoisonnement aigu, et dont la violence peut entraîner la mort dans un temps très court."

After that there should be no doubt either as to the existence or habitat of the fabled upas-tree.

Van Hasselt, in his "Giftlehre," speaks of the effects of the poison as a painful dermatitis, either in the form of an urtricaria, erythema, or erysipelas bullosum, which may terminate in an extensive and protracted suppuration.

Observation of a few cases, as they present themselves in the practice of every physician, will satisfactorily establish the changes in the skin to be simply of an eczematous nature, although of a severe type, in some cases, as to produce quite as marked deformity of parts as true erysipelas. As the character of these changes can be best studied by daily observation throughout their *whole* course, and as such opportunities are not often afforded, I preferred to create one for my purpose. In the study of botany and ornithology I have spent a good deal of leisure time in woods and fields during the past twenty years, and have always collected without gloves. I had never, however, been poisoned by ivy, although I had never specially shunned or sought contact with it.

CASE I.—On September 28th, of this year, I picked a large bunch of the gorgeously-tinted leaves of *Rhus venenata* from a tree some ten feet high, growing in a swamp in Dedham. It was a warm and sunny afternoon, and, my botanical box being filled with other specimens, I brought them home in my hand, from the palm of which the epidermis had been torn in several places a few minutes before by falling upon the uncut, splintered portion of a stump. They were carried in this hand at least an hour and a half, and during the evening were repeatedly handled while arranging them for the herbarium. Some of the still green and unchanged leaves were also picked. The conditions were thus as favorable as possible for the absorption or action of the poison. Not the slightest effect was produced upon the skin, however. I thought I felt during the evening, while working over them, directly beneath the heat of an argand gas-burner, a sensation of irritation, or acridity about the eyes and throat. They were subsequently handled freely for ten days every morning, while changing the driers in the press.

October 6th.—I picked at Fresh Pond a large quantity of *R. Toxicodendron*, specimens changed to autumn tints, and others still of a glossy green, from plants running over stone walls and climbing high trees. Both leaves and stems were collected. These, too, were handled freely on a warm afternoon, and repeatedly afterward in the press. It was absolutely inactive upon my skin.

October 10*th.*—I again visited the swamp where the poison-sumach or dogwood grows in abundance, after specimens of the fruit, but failed to obtain them. I picked many of the brilliant leaves, however, and twigs, and branches, with foliage still unchanged in color. The juice, which exuded freely from the broken wood, was rubbed upon my hands in several places and allowed to dry there, and the leaves touched my face repeatedly while gathering them. I again thought I perceived in my air-passages and eyes, at the time, and later in the evening again, while pressing the specimens, the same impression of acridity. Nothing was noticed upon the skin indicating any action upon its tissues until, two days later (October 12th), a single vesicle, with the peculiar thick cover and somewhat dark look so often seen, appeared upon the back of a finger, but accompanied by no sensation.

October 13*th.*—The third day, a single and similar, though a somewhat larger, vesicle appeared upon my left wrist, to which two others joined themselves on the following or fourth day, thus making a very small group. At the same time, that is, the 14th, a single additional vesicle showed itself some three quarters of an inch from the first-comers upon the finger and wrist.

October 17*th.*—One of the vesicles, which appeared last upon the knuckle, without any external irritation, increased to three times its original size, with burning and itching sensations. The other efflorescences quiescent or receding.

October 19*th* (no specimens having been handled for a week), a new and very large vesicle of irregular shape appeared on the back of the last phalanx of the right thumb, covered with so thick a roof as to appear untransparent, as if the effusion had taken place in the lowest layer of the rete mucosum.

October 21*st.*—Two new vesicles, one on the back of the left fore-finger, the other on the thumb near the base.

October 23*d.*—All the groups, old and new, have become enlarged by the appearance of new vesicles at the peripheries (excepting those upon the wrists, which had been opened for the purpose of an experiment described below), and one new cluster appeared on the back of the right middle finger. All itch and burn extremely.

October 26*th.*—The original vesicles and papules have, in many of the clusters, resolved themselves apparently into two or three times their number of smaller efflorescences, the whole patch flattening down and assuming a darker bronw tinge.

October 27*th.*—A large single vesicle, with the thick and opaque covering peculiar to its seat, has struggled up into

distinct prominence in the palm of the right hand, near its ulnar border; a fresh one also at the base of the nail of the left thumb. At this date there are seven single or groups of efflorescences, on different parts of the hands, in all stages of development or involution.

November 1st.—Another small vesicle has appeared in the right palm, half an inch from that of October 27th. The earlier vesicles have nearly all flattened down to the level of the general surface.

November 3d.—A single vesicle shows itself upon the internal lateral surface of the left thumb. This was the last to appear, and from this date all the efflorescences gradually subsided, and after a fortnight were no longer perceptible. At the present time, November 26th, their seats are still defined by the more glossy look of the new epidermis which covers them.

This may be taken as a description of the effects of the poison upon the human skin in its mildest form. The changes, however, as described, are typical of the peculiar efflorescence in all cases. In what respects it falls short of the manifestations in its severest forms may be learned by comparison with the histories of the following cases:

CASE II.—Several years ago I was called to see a young lady, who, a few days previously, had come in contact with poison-ivy while gathering autumn leaves. Her whole head was greatly swollen, and the features so distorted that no one could recognize her. On closer inspection the skin of the face and neck was felt to be deeply œdematous and was largely covered with vesicles of all sizes, many of which were seated on an erythematous base, others being still in their papular stage of development. There were also numerous large excoriations, from which fluid was freely exuding, stiffening in places on drying, and forming soft crusts. The ears were much thickened, and were dripping with the escaping serous exudation. The hands were also affected, being thickly covered upon their backs with groups of small vesicles, while upon the palms numerous vesicular exudations were dimly seen beneath the thickened epidermal coverings, trying to push themselves above the level of the general surface. The other parts of the body were unaffected. The subjective symptoms were great itching and burning of the parts affected, with the feeling of local discomfort, consequent upon so great a swelling of the features. The eyes were nearly closed. There was a slight general febrile action.

New efflorescences continued to appear for several days, but the course of all the cutaneous manifestations was ab-

breviated, and the œdema immediately reduced by the local treatment which was employed.

The following year, the same patient, then nineteen years old, was bathing at the sea-shore in August, and while climbing up from the water over the rocks, her bare knee and leg came in contact with the poisonous vine. I saw her a few days afterward. There was then a long strip of reddened skin, several inches in width, covered with vesicles, and a few papules, running upward and downward from the knee. The chin was occupied by a large group of papules, a few of which had already advanced to the vesicular stage. The skin beneath one eye was also puffed and reddened. The further progress of the affection was quickly checked by local applications, and, as in the previous attack, the effects of the poison at the end of some two weeks had entirely disappeared.

Three years afterward, at New Year's time, I was again called to see this young lady. Her face and hands were affected in a manner similar to that first described, though the inflammatory process was less severe. The parts were less swollen but there was an abundant eruption of the vesicles and flow of serous exudation from the excoriated parts.

The appearances were wholly characteristic of ivy-poisoning, yet she had not been out of the city, and it was midwinter. On inquiry, I found that a box of Christmas green had been received from the country, which she had used in decorating the house. Among them were sprigs of poison-ivy leaves, the cause and explanation of the attack.

CASE III.—Late in October, 1871, I was called to see a gentleman who, in cleaning up his grounds at the sea-shore a few days previously, had handled the poison vine which grew upon the place in great abundance. His hands, especially the lateral surfaces of the fingers, were then thickly covered with vesicles, and his face and genitals were badly swollen. The following day the eruption appeared upon the arms and about the thighs and abdomen, and continued to spread for several days, until at last it presented the following appearances:

The face and ears were of a lurid-red color, greatly swollen, and dripping with fluid exudation. The neck, chest and abdominal walls were also reddened, and occupied by large patches of flattened papules and vesicles, and by moist excoriations. The genitals were enormously distended by œdema, and the scrotum was running with serum. The arms and legs were also œdematous, and largely occupied by fields of the peculiarly characteristic vesicles of the af-

fection. The patient was of a highly nervous temperament, and suffered tortures from the severe itching which accompanied the eruption. The skin was so universally irritable that no clothes could be worn for forty-eight hours, when the affection was at its height, and a sheet or blanket was the only covering during this time. Sleep without powerful anodynes was impossible for several nights in succession. There was but little fever or constitutional disturbance, however. Applications were almost constantly made to the whole surface, and, after the seventh or eighth day from the first appearance of the eruption, there were no new manifestations, and the skin rapidly returned to its natural state.

These cases may be taken as representatives of the severer forms of poisoning, as they ordinarily occur, and they are the severest of my own experience. To what further development they might have extended without treatment, it cannot be said. There are reports, however, of still graver effects. Dr. Bigelow, in his "Medical Botany," quotes Kalm as saying, in his travels, that he had known persons so swollen by the exhalations of *Rhus venenata* to be as stiff as a log, and capable of being turned about only in sheets; and Dr. Thacher's report of a case, in which the head and body were swollen to a prodigious degree, so as to occasion loss of sight for some time, as well as the loss of hair and nails. Dr. Bigelow adds that he has been told of cases in which death appeared to be the consequence of this poison, although he had never known a fatal case.*

*I am permitted to publish in this connection the following account of a case which occurred many years ago in the family of a professor in our university:

"My wife's brother, of Brookline, a child of six years, died of poison by ivy in the autumn of 1819, having been twice before poisoned during the previous summer. The circumstances were these:

"A servant-boy living in the family, being insusceptible of poison by ivy, had been employed in pulling up all the vines of that plant found growing in the grounds about the house. When his task was finished, he was made to wash his hands thoroughly with hot water and soap, and afterwards with vinegar. Mrs. ——, who feared that the boy, notwithstanding his supposed invulnerability, might possibly be injured by so much handling of the poisonous stuff, stood by to enforce the operation. In the afternoon, at his own request, he was allowed to take little R. to Jamaica pond for a bath. Having stripped the child, he immersed him, holding him with his hands under the armpits, and afterwards rubbed his back with his open palm.

"After two or three days the child was taken ill, and grew rapidly worse. Deep ulcers made their appearance under the armpits, and the skin of the back exhibited, in aggravated form, the usual marks of poisoning by ivy. He died at the end of the third week of his sickness. The attending family physician was the late Dr. Wild.

"The child had been healthy, although not robust. Perhaps the two previous poisonings, from which, however, he seemed to have perfectly recovered, had weakened the power of resistance in the constitution, and so contributed to the fatal result of the last attack. He died on the 6th of October.

"CAMBRIDGE, December 24th, 1872."

Whether these extraordinary results, thus mentioned by Dr. Bigelow, are to be referred to the legitimate action of the poison, or to some peculiar and exceptional condition of the persons when exposed to it, cannot now be determined. However, they in no way affect the conclusions to be drawn from the history of the cases I have cited in relation to the character of its cutaneous manifestations. In these, and in all the many I might quote from personal observation, the pathological changes of the skin are identical, differing only in degree of intensity and extent of distribution. In the mild case, a slight erythema surrounding a papule or vesicle, with a small underlying infiltration or exudation. These are all the phenomena observed, whether we have a single efflorescence or several individuals grouped together. Variations in the course and development of the different lesions do occur.

Taking the simple vesicle with scarcely any erythema surrounding it, or any very perceptible infiltration of the underlying tissues as the type of the eruption, whether occurring singly or in groups, we may have in a small percentage an abortive attempt at vesiculation, and an arrest of development at the papular stage (a failure, that is, of the free exudation to force apart the layers of epithelial cells); or a considerable infiltration into the papillary layer may elevate a cluster of the vesicles noticeably above the general surface; or they may be surrounded by a well-defined erythema or congestion of the tissues immediately surrounding them, in consequence mainly of the scratching provoked by the local burning and itching, the only subjective symptoms present.

In the severe cases we have multiplication of the number of vesicles, either single or massed in close contiguity, and covering large surfaces, or by fusion forming blebs; a greater infiltration into the underlying corium, with proportionate distention of the capilleries and external redness; and a free exudation of serum into the cutis. The overfilling of the vesicles causes a rupture of some of their epidermal coverings, and the discharge of their fluid contents upon the surface, forming moist excoriated surfaces, covered in part with crusts.

These, it will be seen, are the well-recognized lesions which characterize the inflammatory process of the skin we call eczema, and, if opportunity were afforded for fine dissection, we should no doubt find the same pathological changes of tissue which constitute the infiltration, papule and vesicle formation of the progressive stage of idiopathic eczema. It may be that there are skins so peculiarly con-

stituted, or conditions of such intense virulence of the poison, that a true dermatitis or erysipelatous inflammation may be excited under its influence, but I have never seen them, and doubt their occurrence. The constancy of type in the tissue-changes, in every case and of all grades observed by me, is satisfactory evidence to my reason that the affection is always of an eczematous, never of any erysipelatous nature.

If, then, the cutaneous manifestations of ivy-poisoning are those of eczema, have they no individuality, no characistic marks by which they may be distinguished from those of the idiopathic affection? There are differences to be recognized by the practiced eye, but they are more easily detected than described. First, with regard to peculiarities in the seat of the eruption upon the hands, the parts naturally the most frequently affected. It appears most easily, one may say, and therefore generally upon the lateral surfaces of the fingers, or along their edges, later upon the dorsal surfaces, and latest upon the thickened palms. It is more scattered, more irregular in its distribution, than the eruption in ordinary eczema. The character of the efflorescence, too, is strikingly peculiar, though indescribable. It is more uniformly vesicular than vesicular eczema. The vesicles seem to be born vesicles without having gone through an intermediate papular stage of development. They appear somewhat less transparent, as if the effusion had taken place in the lowest cells of the rete Malpighii, and have generally a peculiar tinge of color, which can only be called lurid. Upon the palmar surface their epidermal coverings are so dense that they look and feel more like papules, but the fluid character of their contents may yet be dimly seen and brought to the surface by puncture with a needle. These are some of the differences, minute, it is true, but still sufficiently characteristic to an experienced observer, by which a case of rhus-poisoning may be recognized and distinguished from idiopathic eczema.

In its latter stages, those of retrogression as they may be called, the skin returns to its natural state without any marked change in the character of the eruption. In the mild cases the process of inflammation is seldom carried so far as to transfer the vesicle into a postule, and after reaching its height its serous contents are slowly absorbed, and its flattens down, leaving a fugitive, dull-colored stain to mark its seat at times. In the severe forms the œdema and erythema rapidly subside under treatment, and the excoriations, crusts, and infiltration, disappear in the same manner as in an ordinary case of acute eczema.

The duration of these alterations of the skin, according

to their severity, varies less than would be believed without close observation. In my own case (one of the mildest of cases and untreated), vesicles continued to appear from October 12th up to November 3d, and the whole period of development and involution was from five to six weeks. In the severest attacks, where the changes of tissue reach their highest possible development, and affect large surfaces of the body, the duration is seldom, if ever, more protracted than this, and the individual efflorescences run as rapid a course as those of the same degree of development in the former. The duration of an attack depends largely upon the protraction of the period during which fresh efflorescences manifest themselves. Under local treatment constantly applied, this period, without reference to what may be called the sequelæ, and which will be spoken of below, according to my own experience, generally lasts from ten to fourteen days from the appearence of the eruption. To this is to be added the necessary time for the natural involution of the efflorescences last to appear, according to the degree of development to which they severally attain, from ten to fourteen days more, and we have for the ordinary course of the affection a period of from three to four weeks. How long it might continue without treatment in severe cases, I have no means of knowing except the observation of my own very mild case, in which fresh vesicles were developed for twenty-two days.

Sequelæ.—The question of duration leads us naturally to consider that of other possible effects of the poison upon the skin or general economy, subsequent to what we may call its primary action, above described. There are several popular beliefs bearing on this point, which have perhaps some foundation in facts improperly observed and illogically used. An opinion prevails, for instance, that in a year after the first attack there will be a repetition of the original manifestations upon the skin, which may be repeated for several seasons. Another is entertained, that a variety of cutaneous affections are developed in consequence of its action at indefinite and even long periods after the first attack. If there be any apparent ground for the former, it is mere coincidence in point of time, misapplied to circumstances which have given rise to the latter, for no elements of periodicity in any subsequent possible manifestations of the poison have been established, so far as I know. There may be some reasons, however, for the belief that certain diseases of the skin sometimes follow rhus-poisoning. I have had many patients who have ascribed the development of various of these affections to such cause. They say, "I always had a healthy skin until I was poisoned

by ivy, and afterward it was affected in this way," after an interval of weeks, months, or it may be years. In the existing impossibility of determining the cause of diseases of the skin only in highly exceptional instances, it is not strange that people should refer subsequent affections of its tissues to the continued or intermittent action of an agent capable of producing at first so striking and severe changes as they have once experienced, and that they in many such instances should ascribe as a cause what is only an irrelevant preceding event. Yet there are, I think, good grounds for the belief that certain affections of the skin do follow poisoning by rhus in some cases, which would not otherwise have occurred. This, however, by no means authorizes the conclusion that they are immediately caused by its action, or are in any way specific in their character. There is no evidence, I think, of a continuance or renewal of the operation of the poison, after its primary impression upon the skin has exhausted itself. The characteristic features of the cutaneous manifestations of this period do not repeat themselves in the subsequent affections, which, I think, may be fairly referred to the prior poisoning as an indirect cause. They are forms of ordinary eczema, and, in rarer instances, of acne, only, so far as my observation teaches. I have already referred to the many patients with these common diseases of the skin, who have ascribed them to having been at some previous time poisoned by ivy. I prefer to use in this connection, however, for confirmation, another class of cases, those, namely, in which I have seen these affections develop subsequent to such attacks of poisoning as have also occurred under my personal observation.

1. A young lady, after being badly poisoned in October upon the face, after a rapid recovery, had in the following January an attack of facial eczema.

2. Another young lady, after severe poisoning of the face and hands, had in a few months an outbreak of facial acne.

3. An old gentleman, whose hands had been a short time previously poisoned, had, immediately following his recovery, an eruption of eczema covering his arms.

4. A young man, after being severely poisoned in the face, was immediately attacked by acne of the part, which lasted a long time.

5. A gentleman of middle age was poisoned upon the hands and forearms. A few months afterwards he had an obstinate eczema on the legs.*

*Dr. Bigelow, in his "Medical Botany," states that Dr. Pierson, who was badly poisoned while assisting him in the experiments with the juice of *Rhus venenata*, had eczema of his hands for a year afterward.

In all these cases, it is to be understood, the secondary affection mentioned occurred for the first time in the patient's history, and after the specific primary manifestations of the poisoning had disappeared. It is impossible to say that just the same affections might not have appeared at just these times, even if the subjects of them had not been previously poisoned, because they are of such frequent idiopathic occurrence; but, considering that eczema and acne are pathological conditions of the skin of such a nature as might readily follow the disturbance in its tissues and glands necessarily consequent upon severe poisoning by rhus, it should not be considered illogical to refer their appearance under such circumstances to the morbid impression it made. These, however, are the only possible sequelæ in my experience that might be so interpreted.

Susceptibility to its action seems never to diminish in the same individual, however often affected by the poison.

Chemical Nature of the Poison.—What the real nature of the poisonous principle contained in the plants, capable of producing such peculiar and severe effects upon the human skin, might be, was largely a matter of conjecture, in spite of many attempts to reach it by chemical processes, until a few years ago. Knowledge that its emanations were often as active as contact with the plant of course suggested its volatile nature, but all attempts to isolate and fix it were in vain. The yellowish, milky juice, which exudes from the broken or bruised parts of the plants, possesses, as is well known, the property of changing to a brilliant black after a short exposure to the air, and of producing an indelible black stain upon sellulose. The beautiful lacquer of the Japanese is made from the juice of a species of rhus closely allied to our native plant. Prof. Gray, in his recent interesting address on "The Sequoia and its History," to the American Association for the Advancement of Science, says: "Our *Rhus toxicodendron*, or poison-ivy, is very exactly repeated in Japan, but is found in no other part of the world, although a species much like it abounds in California. Our other poisonous rhus (*Rhus venenata*) is in no way represented in Western America, but has so close an analogue in Japan that the two were taken for the same by Thunberg and Linnæus, who called them both *Rhus vernix*." Of the history of the preparation of this celebrated varnish of Japan, and its effects upon the workmen engaged in its manufacture and use, very little is known. The juice is taken from trees three years old, and is prepared for use as a varnish only by a "tedious process." When first caught it is of a lightish color, and of the consistence

of cream, but it grows thick and black on exposure to the air. The finest sorts of firs and cedars are selected, and the varnish is so transparent that, when laid on pure and unmixed, every vein of these woods is clearly seen. The process of applying it is extremely slow, five coats at least being laid on and ground down. Generally, a dark ground is spread underneath beforehand, "recourse being frequently had to the fine smudge which is caught in the trough under a grinding-stone." Native cinnabar, sulphate of iron, finely-powdered charcoal, and other substances, are also employed for coloring the wood before varnishing, and sometimes gold-leaf ground very fine is mixed with the lacquer.

This account, by far the fullest I could find, is taken from a book of travels published one hundred years ago; while only in Kaempfer, "*Amœnitatum Exoticarum*" (1712), do I find, through the kindness of Prof. Gray, an allusion to the action of the varnish upon those engaged in its use, as follows: "Vernix exsperat halitum, ex quo labia tumescunt, et caput dolet; undein deliniendo artifices serophiolo os et nares obligant."

I have heard of a person who had been poisoned by the presence of imported lacquered-ware in apartments, but I report the case only on "hearsay" evidence.

In 1856, Prof. John M. Maisch published the first satisfactory account of the chemical nature of this poison in the proceedings of the American Pharmaceutical Association. As the results of his important investigations have never been fully introduced to the profession, I do not hesitate in this connection to offer a brief account of them.

In 1857, Dr. Khittel made an analysis of the constituents of *Rhus toxicodendron*, a translation of which appeared in the *American Journal of Pharamacy*, 1858. He came to the conclusion that its active principle depended on a volatile alkaloid, obtained by distilling an infusion of the dried leaves. As the leaves are so volatile that they give up a large part of their poison while drying, it is evident that boiling down an infusion of them would, as Prof. Maisch says, be the best method for obtaining the least possible quantity of the poisonous principle, if, indeed, it could be obtained by this process at all.

Prof. M. began his investigations by attempting to extract and preserve this alkaloid, but satisfactorily demonstrated that it does not exist even in the fresh plant. He then enclosed some fresh leaves in a tin box, and introduced some moistened test-papers. The next morning the circuma and red litmus-papers were unaffected, but the blue litmus-

papers had been colored strongly red, proving that the exhalations contained a volatile acid. This acid was extracted by two different processes, which it is unnecessary to repeat here. It was colorless, strongly affected blue litmus, and neutralized bases, the salts with the stronger bases giving a distinct alkaline reaction. With a great variety of reagents it gave reactions identical with those of formic and acetic acids, but its behavior with oxide of silver, nitrate of silver, oxide of mercury, and corrosive sublimate, proved its individuality, and established its character as a new organic acid, for which Prof. M. proposed the name of toxicodendric acid.

"That it is the principle to which the poison-oak owes its effects on the human system was proved to my entire satisfaction," he says, "by the copious eruption and the formation of numerous vesicles on the back of my hand, on the fingers, wrists and bare arms, while I was distilling and operating with it . . . . I may state here," he tells us in the early part of his communication, "that I have frequently collected the leaves, flower and fruit of *Rhus toxicodendron* without ever experiencing any evil effects. I pave handled all parts of the plant with impunity, and have even spread the juice over my hands, without feeling more than a slight itching upon the upper side of the hand, which immediately disappeared on washing the hands with water. In a word, I considered myself so little subject to its influence that I collected the leaves for all these experiments myself. I could hardly expect to try the efficacy of the poisonous principle, when isolated, upon my own person; the result, however, proved to be very different. Several persons, coming into the room while I was engaged with it, were more or less poisoned by the vapors diffused in the room; and I even transferred the poisonous effects to some other persons, merely by shaking hands with them." (Whether after washing hands?) "The dilute acid, as obtained by me, and stronger solutions of its salts, were applied to several persons, and eruptions were produced in several instances, probably by the former, though not always, which was most likely owing to the dilute state of the acid. Whenever this was boiled, I always felt the same itching sensation in the face and bare arms which I experience on continual exposure of my hands to the juice of the plant. . . . . Whether the toxicodendric acid is, to a greater or less extent, lost in drying, I am, as yet, unable to say." As regards its isolation it is easily effected, and the expressed juice, preserved by alcohol, he believes to be the best preparation. Prof. M. closes his interesting communication

with the promise that, if time permits, he may attempt to prepare the acid in more concentrated form, and to determine its composition. It is to be regretted that, as he states in a letter to me, he has thus far been unable to make further researches concerning it.

There can be little doubt, I think, of the correctness of Prof. Maisch's views with regard to the chemical nature of poison, and they are entirely consistent with our knowledge of its action upon the human system.

How far this volatile principle may be carried in the air in a sufficiently concentrated form to produce its peculiar effects upon the skin, cannot be exactly stated, but it must vary with the degree of individual susceptibility. I have been assured by persons well acquainted with the plant, and so easily acted upon as to have been repeatedly poisoned by it, that they have been affected by driving along a narrow road, the stone walls on either side of which were covered with the flowering vines of *Rhus toxicodendron*. Many persons who carefully shun contact with it are frequently poisoned when they approach it even. That very slight contact is sufficient to produce very severe action upon the skin at times, is certain. The only measure of the extent of its power can be learned by experience alone; some persons being entirely unaffected by ordinary handling of specimens, who are yet susceptible in some degree to its action in a concentrated form. My own case, and the experiments of Prof. Maisch, above quoted, illustrate this.

The two species differ only in the degree of their action—*Rhus venenata*, the tree, being much more powerful than the *R. toxicodendron*—and many persons are able to handle the latter with impunity, who are readily poisoned by contact with the former. It is evident, then, that cases of poisoning would be much more frequent and severe were poison-sumach of as common occurrence about dwellings as the poison-ivy, for the majority of persons are, no doubt, unaffected by the latter.

With regard to the influence of season upon the virulence of the poison, there is an impression that it is most active in the flowering season, and the emanations at such times may be especially so, while the skin on hot days, and when perspiring, may be most ready to absorb it. This may be correct; it is, however, sufficiently powerful at all seasons. At least one half the cases I have seen occurred in the fall, after the change in the foliage, and in persons who, collecting autumn leaves, had been attracted by the gorgeous coloring both species then exhibit. No leaves approach in variety and brilliancy of tints those of *Rhus venenata*. But

later still in the season the venomous properties of these plants manifest themselves. In winter even, cases of poisoning occur, and are no doubt sometimes unrecognized. In the case of the young lady, quoted in the illustration of the severer form of poisoning, one of the attacks, it will be remembered, was caused by handling twigs and dried foliage of *Rhus toxicodendron* at Christmas-time. Other cases might be reported at length; but it will be enough for the purpose simply to mention them.

Some years ago, in December, I was called to a gentleman who had a severe attack upon his hands, who had handled some of the branches while chopping wood.

Last February, I treated a gentleman for quite a severe attack upon the hands, who handled wood entwined by poison-ivy out of doors, and whose farmer at the same time was very bady poisoned while chopping the same wood.

Dr. Bigelow states, in his "Medical Botany," that he has known persons to be poisoned in the winter, when the wood of *Rhus venenata* was burned upon the fire. Whether in these cases the poisoning was produced by the exhalations of the burning wood or by contact while handling it by the fireside, he cannot positively say.

I was curious to know how long dried specimens in the herbarium might retain their poisonous properties, and, for this purpose, wrote to Prof. Gray, who very kindly replies as follows:

BOTANIC GARDEN, CAMBRIDGE, MASS.,
October, 21st, 1872.

"DEAR DOCTOR: My personal knowledge that rhus dried specimens are harmless amounts merely to this: I handle over and over dried specimens with impunity, but am very sensitive to the fresh plant. Then the poison is volatile, as shown by its affecting persons who do not touch it actually; that of the leaves, I should say, must escape and dry out in the drying process, or in the course of time. In a stem it would not volatilize so soon, but I should expect to be poisoned from any *old* herbarium specimen, either from twigs or leaves . . . "

Thus not only the leaves, but the wood and bark, contain the virulent principle at all seasons, and the fruit also possesses poisonous properties when swallowed.

The time required for the development of the visible manifestations of the poison upon the skin, after contact with the plant or its emanations, or its period of apparent latency, seems to vary greatly. In his "Genera," Gray says, "The symptoms begin several hours after exposure." Dr. Bigelow, in his remarks on *R. venenata*, says, "The effects show themselves upon the skin generally within eight hours." My own observations do not agree with these as to the rapidity of its action. In my own case, above recorded, at

least forty-eight hours passed before anything was felt or seen upon the parts to which *R. venenata* was applied. It may be properly suggested, in explanation of such delay, that my skin is not easily acted upon by the poison. This is true, but my other observations concern patients, that is, persons especially susceptible to its action, and I find on reference to my record-book that three days, four days, and five days, are repeatedly given by them as the interval between contact and the appearance of an eruption sufficiently marked to attract their attention. Such length of interval seems to be the rule rather than the exception in my experience, although this, of course, does not invalidate the correctness of their statements that, under some circumstances, a few hours may be sufficient for the development of the eruption. That new efflorescences may continue to appear, after the first manifestations, for a much longer period, we have already seen.

But how shall we explain some of the peculiar phenomena connected with the action of this poison, as recorded in my own case, for instance? The first vesicle appeared on the second day following that of contact with the juice. From that time for twenty-two days these characteristic efflorescences continued to be occasionally developed, singly toward the last, and on parts of the hands more or less remote from one another. Where had the active principle, which on November 3d gave rise to the solitary vesicle on my left thumb at the distance of two inches from the single and only other eruption on that member, been since the contact on October 10th? Had it been originally absorbed at that particular point, and been lying dormant for three weeks before sufficiently impressing the tissues to recognize its presence by such excessive vitality of action? or was the poison borne thither at that late period from other focus of activity? or had the spot been freshly poisoned by contact with parts similarly affected? Strange as it may seem, the first of the three suppositions is the least improbable, and must, therefore, for want of better explanation, be accepted as the solution of this mysterious action.

With regard to the latter point, that of *contagion*, a definite opinion may be expressed. The question is often asked, "Is ivy poisoning contagious? Will contact with the eruption, or the fluid discharges, produce the disease upon other parts of the same, or upon the skin of another individual?" It is not at all improbable that a person who had been handing specimens of rhus might, by immediately taking the hand of a person excessively sensitive to its action, and before the volatile principle had been dissi-

pated, or washed away, or absorbed, convey the poison thus to the other, which would subsequently prove effective. That would be transferring the poison, and not the disease. Prof. Maisch shows the possibility of such an event in the account of his experiments. It is in this way that the penis is so often affected, no doubt, it being handled during micturition while out of doors, and while the poison is still fresh upon the hands. There are no grounds for believing that, the poison once absorbed, or removed by washing or volatilization, the disease is in any way contagious. The freest handling of parts affected in all stages of the efflorescence fails to transfer the disease to the hands of another, and I believe surface contact with other parts of the same individual entirely ineffectual in spreading the eruption. To determine the possibility of such communication, I undertook the following experiment in connection with my own case: On October 14th, both the vesicles upon my wrist, the one of twenty-four, the other of eight hours' duration, were opened, and their clear and colorless contents applied and scratched into the epidermis on the wrist of a gentleman who is especially sensitive to the poison of *Rhus toxicodendron*, having suffered twice during the present summer, and many times and severely in past seasons, from contact with it. The result was wholly negative. Dr. Bigelow reports that Dr. Pierson inoculated with the serum from vesicles on the second day in the case above referred to, and with the discharge from the later stage, but without effect.

On Animals.—I have been unable to find a single instance on record of the poisonous action of rhus on the lower animals. I have inquired of a great number of sportsmen with regard to their dogs, and published in the *Spirit of the Times*, through the courtesy of its editor, a similar inquiry. There seems to be no reason why short-haired pointers, considering the necessarily frequent contact with poison ivy while hunting, should not sometimes exhibit the effects of its action, if their skins are at all susceptible. One gentleman, a physician, told me that his dog's eyes had been closed by swelling once or twice while hunting where ivy abounded, which he attributed to its action, but he had never seen any eruption upon the skin at the time.

The leaves of both species are found eaten by worms, and spiders attach their webs to them. Dr. Bigelow, on the other hand, refers to an account in the *New York Medical Repository*, of a swarm of bees alighting on the branches of *Rhus venenata*. The next day they were found dead, their bodies being black and swollen. He adds that in spring

their flowers are sought by numerous insects. On the other hand, I find it stated that insects never attack the Japan tree.

Treatment.—A great many remedies have been recommended, in both medical and botanical books, for the treatment of persons poisoned by rhus, while others of a "domestic" character are used in various parts or the country. Among the former a solution of acetate of lead holds the most conspicuous place. Torrey, in his "Botany of New York," says one of the best applications is a solution of sugar of lead, after the use of saline cathartics. Dr. Bigelow ("Medical Botany") thinks the application of acetate of lead as useful as any external palliative, and that it should be used as cold as possible. Solutions of sulphate of copper and of other metallic salts have also been recommended by physicians. Among the domestic remedies, vinegar, and solutions, and carbonate of soda, are widely and highly esteemed. A decoction of Virginia snakeroot (*serpentaria*) is also supposed to possess special power against the poison. In an old copy of Bigelow's "Florula Bostoniensis," picked up in a second-hand book-store, I find, in connection with *Rhus toxicodendron*, a marginal note by its former owners, stating that, if soft soap be rubbed thoroughly into the hands after handling specimens, its poisonous action will be prevented.

It is evident from our knowledge of the nature of the poison and its effects, as above described, that two distinct questions are to be considered in connection with the treatment of rhus-poisoning, as in toxiocological therapeutics generally, first: that of the necessity and the selection of an antidote; that of the proper management in the changes in the tissues of the skin. So far as I know, these have never been sufficiently recognized by writers and practitioners, perhaps because we were so long ignorant of the true chemical nature of the poison; and the reputation which some of the above-mentioned remedies have, perhaps, justly acquired, rests upon their successful action in one or the other of these directions, according to the period in which they may have been used.

Whether or not we should resort to an antidote must, of course, be determined by the length of time since the parts affected were in contact with the plant, or its exhalations. As the poisonous principle is of a volatile character, it is questionable how much good can be done in this direction after the first day, or even then after the hands have been washed with simple water. How long the poison may retain its characteristic peculiarities after absorption by the

skin, and how readily our antidote may follow and penetrate to it, are also matters of uncertainty. As to the nature of the remedies to be used at this stage and for this purpose, there can be, of course, no longer any question. We have to deal with an acid, and the antidote for an acid is an alkali—that is, provided the salts thus formed are not equally poisonous. In poisoning by oxalic acid, for instance, potash is not an antidote, because the combination formed is nearly as poisonous as the acid itself. Whether the salts formed with toxicodentric acid by ammonia, potash and soda are likewise poisonous, Professor Maisch leaves us somewhat in doubt as the result of experiment, but speaking clinically he leads us to believe they are not, for, he says that an application of solutions of ammonia seemed to be most effective in counteracting the action of the acid. This is consistent with the popular reputation of solutions of saleratus and soda as remedies, and will explain the action of the soft-soap above mentioned. These are true antidotes, but they can be of benefit only from their chemical action, and in this way. In the later stages, or, in other words, against the subsequent eczematous changes in the cutaneous tissues, they can do no good. The action of that most popular of all remedies in this affection, the solution of sugar of lead, is a mixed one, and seems to have been happily, though unwittingly, selected as an appropriate remedy in all stages. Toxicodendric acid precipitates from it an insoluable, and therefore harmless, salt, while its astringent action is well adapted, in many cases, to the relief of the inflammatory processes in the skin.

The treatment of the later stages of rhus-poisoning, that is, of the eruption it produces, need not be specially considered, for it is mainly that of the corresponding varieties of ordinary acute eczema. It is seldom that the physician is called upon before the inflammatory process is well developed, so that there generally remains for him only the selection of the applications appropriate to a simple eczema of the same stage. In the great majority of cases, I have found black-wash—calomel ʒ j, lime-water O j—by far the best a pplication to the affected parts, used as an evaporating lotionupon thin and old linen and cotton cloth, for half an hour to one hour at a time, two or three times a day. I have used in connection with it, to moist or excoriated parts, a powder of oxide of zinc ʒ j, starch ℥ j, or plasters of oxide of zinc or diachylon-ointment, as in the management of ordinary eczema. In the black-wash we have, possibly, three elements at work in our favor: first, the alkali as antidote, if it is of any avail at such periods; second, the action of

cold from evaporation upon the local hyperamy; and, third, the astringent effect of the mercurial powder upon the diseased tissues. In all cases of poisoning I have been entirely satisfied with its effects, however extensive in distribution or advanced in development the inflammatory condition of the skin. Only upon the thickened epidermal coverings of the efflorescences in the palms does it seem ineffectual. To these tardy and well-protected manifestations I apply solutions of corrosive sublimate, from one to two grains to the ounce of water, in the same way as the blackwash is used upon the other parts. By these means the eczamatous process is checked and shortened, and the subjective symptoms greatly alleviated.

Of any internal treatment of direct bearing upon the affection, I have never seen the operation or need. A simple and restricted diet in severe cases is, of course, to be observed.

ART. V.—A REPORT ON THE ORIGIN AND THERAPEUTIC PROPERTIES OF CUNDURANGO. By W. S. W. RUSCHENBERGER, M.D., Med. Director, U. S. N., President of the Academy of Nat. Sciences, Philadelphia, etc. Published by order of the Navy Department, 1873.

We have received this little pamphlet of 23 pages, containing a report made to the Navy Department, after examination of the specimens of cundurango forwarded from Peru by Dr. Ayers, U. S. N., and as complete an analysis as could be made of them by the distinguished author, aided by Prof. Jos. Carson, of Philadelphia.

The profession is fully aware of the total failure of the drug to sustain the reputation given it by the Peruvian medical men, whose diagnoses were very unreliable, and by the brace of Washington empirics who sought and obtained wealth and notoriety by forcing the drug on the market, and were equally successful in obtaining (unsought) the contempt of the profession for their unprincipled course.

A brief history of the medicine is given, by which it seems that it was first used in 1869; that several cases, the

correctness of diagnosis in which is very uncertain, to say the least, were relieved by it, and that the Government of Ecuador forwarded specimens to London and Paris for experiment. The United States minister called the attention of his Government to it, and as a result Dr. Ayers was ordered "to collect botanical specimens of cundurango, and such information relating to it, as might be possible for him to obtain." The report then describes the journey of Dr. A., the locality of the district where the plant grows, the mode of collecting it and preparing it for use. It is impossible in a review to note all the descriptions of the specimens (ten in number) collected. Suffice it to say that they are as complete as could be expected, coming from a person of the reputation of Dr. Ruschenberger.

"Of the physiological effects of the *cundurango blanco* very little has been ascertained. Dr. Ayers ate two or three drachms of the bark in the course of an hour without any sensible effect. In a case under his observation, vomiting and purging occurred after taking two drachms of the bark of the root; whether they were produced by it, he was not satisfied. * * * Dr. Chiriboga, of the military hospital at Guyaquil, found in his own person, that an infusion of four ounces of the stem produced a strong stimulant effect. A warm infusion of from two to three drachms of the bark in a pint of water, was followed by copious diaphoresis, and a considerable increase in the activity of the circulation, and, in a short time, by a notable increase of urine, which had the odor of cundurango. In several cases the elimination of urea was augmented; in some, vertigo, disturbance of vision, nervous agitation and a tendency to delirium were noted. A patient in the Naval Hospital at Philadelphia, suffering from syphilis, took in drachm doses three times a day, sixteen ounces of a fluid extract, prepared at the naval laboratory, N. Y., from the cundurango sent by Dr. Ayers, without any observable effects of any kind. Testimony on the therapeutic value of this plant is not satisfactory. * * * It is asserted, in Loja, that cancer, rheumatism, dysentery, dysmenorrhœa, chlorosis and catarrh have been successfully treated with cundurango."

The remedy had also been used, with variable success, in asthma, blenorrhagia, ulcers, paralysis, constitutional syphilis and glandular enlargements.

The report concludes: "Several cases of cancer, occur-

ring in private practice in Philadelphia, have proved fatal under the use of this article. Of the many trials of it made by respectable practitioners in different parts of the United States, none is reported successful. My investigation of the subject, leads to a conviction that there is much testimony but no evidence that cundurango has a curative influence in cases of cancer. The hope created that it would be found a specific has proved fallacious."

Mr. Davison, of Middlesex Hospital, says: "The cundurango had positively *no effect* upon the progress of the disease (cancer) in these cases."

We commend the perusal of this paper to the profession, and agree with the author that "although experience has shown that a specific remedy for cancer has not been found in cundurango, the merit of collecting, through the labors of P. A. Surgeon Ayers, the information contained in this report, is not abated. The subject has not yet lost its interest. Had the promised efficacy of cundurango been fully realized, the prompt effort of the bureau to obtain accurate knowledge of the plant, and make it common to the public, would have been generally commended."

Gynecology and Diseases of Children.

ART. VI.—*Utero-Placental Vacuum.* By H. G. LANDIS, M.D., Niles, Ohio.

Whoever has seen a boy's leather "sucker" will readily notice on reflection that it is of very similar mechanical construction of the placenta. As we used to make the aforesaid instrument, it was a circular piece of leather, with a string centrally attached. When made pliable by moisture, and applied firmly to a brick, traction on the string resulted in a vacuum beneath the leather, which was so forcibly held down to the brick that the latter could readily be raised from the ground by it. For the sure performance of this feat, a flat surface on the object to be lifted was an essential; and this requisite being absent in the womb is the probable cause of the rarity of the accident

which is exemplified below, and which seems to deserve the name prefixed to these remarks; for the placenta has every other requirement for its occurrence.

February 9.—Was called to Mrs. M. one hour and a quarter after childbirth. Her labor had been short, but the midwife in attendance could not deliver the after-birth, although she had spared no effort. I found the placenta partially protruding from the womb by a hard conical eminence a little to one side of the attachment of the cord. Seizing the cord, I made as much traction as it would bear, aiding this by external pressure on the uterus, squeezing the womb, etc., all of which had no effect. The idea of a vacuum then coming to my succor, I perforated the placenta, and on withdrawing the hand from the vagina, it was at once and rapidly expelled as far as the perineum without any traction at all. No clots followed, and the placenta was of medium size.

Cazeaux mentions almost every possible cause of detentien, but not this. Although I have never noticed it unmistakably before, I am inclined to think that some of the cases generally ascribed to the apparent great bulk of the placenta due to the formation of clots, are rather of this nature. In the case just mentioned, the predisposing cause appears to have been a capacious vagina, which readily admitted the external air. The immediate cause was traction at an improper time, not before the placenta was detached, for it evidently had been, but before its edge could be felt at the os uteri, after which this or indeed any other of the difficulties in delivering the after-birth are unlikely to occur.

ART. VII.—*Successful Case of Transfusion*, under the care of F. E. CAREY, ESQ., M. D., Guernsey.

On the 28th of January, 1872, Mrs. V. was seized with the early pains of labor, which continued during the remainder of the day. On the morning of the 28th, the head entered the cavity of the pelvis, though the pains were so slight that they could scarcely be said to manifest the characteristics of the second stage. Even these however ceased, and the progress became absolutely nil. The patient being irritable and much exhausted, in the afternoon an opiate was given, but no sleep followed, and at 10 P. M. the head occupied the same position it had done fifteen hours previously.

The patient was a primipara of an indolent disposition, and tending to obesity. About two months previously she had suffered from an attack of pleuro-pneumonia on the right side, and a fortnight later from a similar attack on the left side. Her sister states that since that date she has been unusually drowsy, dosing at all times when not actively employed. There has been no swelling of the feet. This drowsiness has not been so marked within the last few days as previously. The urine was not examined.

At 10 P. M. the head occupied the right oblique diameter of the pelvic cavity, but no fontanelle could be felt. A large caput succedaneum had formed, and the lower part of the vagina and labia were œdematous. An attempt to deliver with forceps having failed, delivery was accomplished with difficulty by version at 12:5 A. M. on the 30th. The child was still-born, but was resuscitated by insufflation. The uterus at first contracted, but soon relaxed, and a quantity of air was sucked into the cavity. Hæmorrhage came on with increasing intensity, in spite of all efforts to control it. Pressure on the abdominal aorta at last partly succeeded, but the patient had fallen into a state of syncope, and moist rales were visible all over the chest, even at a distance from the bed. Under these circumstances transfusion was performed.

An ordinary glass male syringe, holding about an ounce and a half, was procured, and a friend having been found willing to give the necessary blood, the operation was commenced. The blood was drawn into a warmed wine glass, taken up in the syringe, and steadily injected into one of the veins at the bend of the elbow, which had been opened for the purpose. This was four times repeated, and (allowing for blood lost by clotting) about four ounces were injected. The effect was instantaneous; the patient revived, looked about her, and in a few minutes spoke. The pulse, before imperceptible, reappeared, and the rales subsided. She had 20 min. tinct. opii and brandy, and by half past three, was so well that we left her.

January 30th, 8 A. M.—Has been quiet, but has not slept. Had brandy repeatedly. Pulse 140, steady; respiration 28, variable.

9 P. M.—Pulse 124; respiration 28, steady.

31st, 11 A. M.—Pulse 128. A little excited, but feels well, and hungry.

6 P. M.—Patient suddenly seized with dyspnœa. Moist rales all over the chest; face livid; extremities cold. Pulse 134; respiration 42. To have tinct. opii min. 10, every four hours, and brandy.

Feb. 1st.—Better this morning. Pulse 128; respiration

32, quiet. It is supposed that the death of her child yesterday afternoon may have had some connection with her seizure.

2d. Quiet and comfortable since last night. Bowels moved yesterday by castor oil. Pulse 120; respirations 32. Wound in arm healed.

After this date, with the exception of a wild expression, which she constantly wore, and of occasionally giving way to bursts of emotion, she progressed favorably, until

Feb. 8th, when the pulse began to rise, and she showed unmistakable signs of sinking. She refused food, and became quite unreasonable. Pulse 126; respiration 34.

9th.—Patient rapidly sinking; reason quite gone. Pulse 120, intermittent, feeble; respirations uncountable. Has lost control of the sphincters.

4 P. M.—Died, eleven days after operation.

REMARKS.—Transfusion is one of those operations which we are but seldom called upon to perform in the course of obstetric practice. When, however, the necessity does arise it is all the more apt to find us unprepared; and as that necessity is always urgent, it is our duty to be aware of the most readily procurable instruments with which it can be performed. In the preceding case the operation was performed with, what I do not hesitate to call, success, with instruments found in the ordinary domestic laboratory. A common glass syringe and a wine glass can almost always be obtained. We found the size mentioned very convenient, as containing just about the quantity which could be injected before clotting interfered seriously with its action. The blood was not drawn into the wine glass until the moment it was required, and the glass was washed in warm water between times. A glass syringe, by its transparency, gives us the most perfect assurance that we exclude all air—a point of the most vital importance.—*Glasgow Medical Journal.*

ART. VIII.—*Lebert on Tuberculosis in the Female Generative Organs.* By Dr. H. LEBERT (*London Medical Review;* from *Arch. fur Gynaecologie,* vol. iv, part iii, 1873.)

From thirty-three observations, he has been able to follow the history of the reciprocal influence of pregnancy and tuberculosis. He concludes that tuberculization of the internal generative organs among women may be the principal primitive localization, or may coincide with pulmonary tuberculization, or finally may be secondary to this.

The malady described as tuberculosis of the neck of the uterus is not demonstrated; it represents most frequently a caseous degeneration of the epithlium of the glands of the neck. The influence of pregnancy and parturition upon tuberculosis shows itself most often between the ages of twenty or thirty years, more between twenty-five and thirty years, and even between thirty or forty years. When the tuberculous process exists in young women it may be arrested, but generally takes on new development under the influence of pregancy, often of the first, but sometimes later. It is exceptional that women who have formerly had tubercle resist the influence of repeated pregnancies; their infants are generally feeble and tuberculous.

Pregnancy generally moderates advanced phthisis, but the initiatory phases of tuberculosis follow their course without being hindered during the term of pregnancy. Abortion, pregnancy, and parturition accelerate in three fourths of the cases the progress of phthisis. Pregnancy has no notable influence upon the localization and the form of tuberculosis. The sad influence of parturition shows itself especially in the cases where pregnancy had favored the development of tubercle. Women affected with tuberculosis have little milk; they cannot generally nurse; the children are weak, scrofulous, and, later, tuberculous.

Ophthalmology and Otology.

ART. IX.—*Case of Rupture of the Iris.* By GEO. H. POWERS, M. D.

On the fourth of July, 1872, Miss ——, aged 15 years, was sitting at a second floor window, when a piece of tin (a fragment of oyster-can) was violently thrown from the middle of the street, by the explosion of some powder-crackers, through the window-pane and against her head, causing a deep wound over the left eye.

I saw the patient about thirty minutes after the accident occurred, and found a deep, irregular wound, an inch in length, along the upper border of the left orbit, and several

small abrasions about the cheek and nose. Careful probing discovered no foreign substance in the wound, and the lids were so distended that it was impossible to separate them enough to allow a satisfactory examination of the globe. I could only determine the negative facts, that there was no hemorrhage into the anterior chamber, no injection of the superficial vessels of the globe, and no apparent wound of cornea or sclerotic. There was a large rent in the iris, the entire upper half of the iris being absent, and my supposition was, that a small fragment of glass had entered the globe. There was no perception of light, and I gave a very unfavorable prognosis, expecting to be obliged to resort to enucleation of the globe.

The pain was excessive, but yielded under the use of chloral in moderate doses, and the constant use of iced compresses so reduced the tumefaction, that on the fourth day the lids had regained their natural appearance, the irregular external wound had healed, and a thorough examination was possible.

I found the cornea transparent and intact; the anterior chamber clear; the lens also was transparent, except in a few isolated spots, which I took to be fragments of uveal pigment on the capsule; the vitreous was so turbid that the fundus could not be seen; the iris was torn away from its ciliary attachments at the upper and inner border, and was rolled up into a narrow band, which stretched across the median line of the anterior chamber, covering the situation of the natural pupil, so that the pupil, greatly distended by the loss of contractility of the radiating fibres, was displaced downwards. There was, at the time of this examination, a partial return of the visual power, the outer portion of the retina first regaining sensibility, so that the patient began to recognize bright objects held to the nasal side, and after this there was a gradual though very slow increase in the field of vision through its peripheral portions, the presence of the central band of iris preventing central vision. The vitreous gradually regained transparency and allowed the details of the fundus to be seen quite clearly. At one time, during an examination with the

opthalmoscope, I was satisfied, by an apparent displacement of the optic disc, that the lens was partially luxated, but it soon was spontaneously replaced in situ.

I have recently seen the patient, and made an appointment to examine the eye with the ophthalmoscope, and to determine the extent of the visual field and the sharpness of vision; but as she failed to appear, I cannot give precise data.

The iris is so far restored in its contractility, that the pupil is very little, if any, larger than that of the other eye, but its displacement downwards causes double images to some extent. Vision is still improving in clearness, and the patient stated that she can read large letters.

Here is a rupture or coloboma of the iris, caused by the shock of a blow upon the lid, unaccompanied by any wound or abrasion of the external tunics of the eye, or by internal hemorrhage, or by permanent luxation of the lens, or (thus far at least) by cataract. I have never seen a similar case, and do not remember that there is one on record where the injuries were not much greater than in this instance.

ART. X.—*Detachment of the Retina.* Reported by W. H. WINSLOW, M. D.

M. W., a woman, *æt.* 27 years, in good general health, came to the clinic complaining of dimness of sight, which had come on suddenly some two months previously, before which her vision had been perfect; though she had always been myopic.

Externally, the eyes appeared healthy. Upon testing with Snellen's types, in the left $V=\frac{20}{L}$, in the right $\frac{20}{LX}$, and the field of vision in the latter was found contracted above the horizontal line and to the inner side; but she could count fingers below.

Ophthalmoscopic examination revealed, in the left eye, a large sclerectasia posterior, to the outer side of, and almost surrounding, the disk, with considerable engorgement of the retinal vessels.

In the right there was found a detachment of the retina

below the horizontal line. She was ordered to wear blue coquille glasses and to give her eyes perfect rest; rather with a view of avoiding injury to the other eye, than with any expectation of improving the right; and to take elixir of quinine, iron, and strychnia, to improve her general condition.

Another case applied for relief, February 11, in the person of J. W., a robust man, *æt.* 28 years, a farmer by occupation, who was also myopic, and had lost his left eye by a powder-explosion ten years previously, which slightly injured the right.

Vision in the right had always been good, until one warm day last summer, when he got overheated while at work in a corn-field and sat down to rest upon the fence.

Soon after he noticed a dimness of vision, which increased much when he jumped down, and he had to be led home. There had been no improvement since, and vision was only quantitative.

The left eye presented a phthisis bulbi, and the right showed a small corneal opacity—the result of the injury when the left was destroyed.

The ophthalmoscope disclosed an old detachment of the retina projecting into the vitreous from the lower portion of the fundus, of a dirty, grayish appearance, with atrophied, blackish, thread-like vessels.

It rolled up in waving folds, entirely obscuring the deeper portion of the chamber. As nothing could be done to improve or restore his vision, he was recommended to apply at the Asylum for the Blind.

SYMPATHETIC CHOROIDITIS.

H. McG., a man, *æt.* 60 years, in good health, by occupation a hostler, was struck in the left eye by a carriage-shaft, October 10, 1872, which caused much pain, inflammation, and total loss of vision, and procured his admission into the hospital.

There was much chemosis; a superficial slough of two-thirds of the cornea occurred, with hypopion, for which paracentesis at the lower edge of the slough was performed to evacuate the pus and relieve tension, and a solution of atropia was instilled often.

Pus reaccumulated, distressing symptoms returned, and the paracentesis was repeated; the slough deepened, and much pain supervened, for which the artificial leech was applied to the temple, and the slough gradually healed under slight stimulation by a solution of nitrate of silver.

Vision was destroyed in this eye, but was $\frac{20}{XX}$ of Snellen's in the right.

The patient now left the hospital without permission, and did not return until November 11, when the conjunctiva of the injured eye was found inflamed and thickened, and an anterior staphyloma forming. He complained of dimness in the right (hitherto healthy) eye, and, upon testing this, $V=\frac{6}{C}$ only; and, as there was much pain in the left, the latter was immediately extirpated.

After recovery from the operation, the right eye was examined by the ophthalmoscope, and well-marked choroiditis found to the outer side of disk, irregular pigmentation, and white spots of sclerotic here and there, the result of choroidal atrophy, with a crescent forming at the margin of the optic nerve. The operation improved vision at first.

The patient was retained in the hospital under alterative treatment and observation, and now, April 1, 1873, has a distinct sclerectasia posterior, a slighly-cupped disk, with diminished capillary circulation, and an almost complete atrophy of the pigment throughout the fundus, with vision little more than quantitative.

ART. XI.—*A Case of Otitis Media Suppurativa, with Mastoid Periostitis; Complete Relief by Incision, without the Evacuation of Pus.* By O. D. POMEROY, M. D.

Mary V., aged twenty-three, recently married, of slight figure, light complexion, good general health, but not able to endure much hardship, on the 7th of January, 1872, was attacked with great pain in the ear and side of the head, which had lasted until her visit to the Manhattan Eye and Ear Hospital three days subsequently; not allowing her any rest day or night. Her appearance indicated prolonged and acute suffering; she was thoroughly demoralized by it. On examination, the external meatus was swollen so as to make inspection of the membrana tympani impossible, there were a profuse discharge, great tenderness about the region of the external meatus, difficulty and pain in opening the mouth; slight redness and œdematous swelling of the mastoid region, with tenderness on percussion. At once an incision was made as nearly over the region of the mastoid antrum as possible, an inch and a half in length, dividing the soft parts to the bone, including the periosteum. No pus was discharged, as might be anticipated, but a moderate quantity of blood.

While waiting for the bleeding to subside, the patient felt sensible relief, and has not since (January 25th) experienced a particle of pain about the ear or head, except for a couple of hours after four A.M. of next night. Ordered poultice behind auricle, ear cleansed by syringing with warm water three times daily, together with instillation of a saturated solution of alum in water into the external meatus. In one week discharge has stopped, and Politzer's operation produces the perforation whistle, which was impossible previous to this, on account of closure of the Eustachian tube, probably from swelling at its tympanal orifice. The severity of the attack, and profuseness of the discharge, would occasion a strong suspicion of perforation of the drum-membrane, even had we not the perforation whistle to prove it. This attack had been treated by blisters and poultices without avail. Five weeks previously she had a similar attack, lasting two weeks; the pain in that instance was relieved by morphine, after other remedies had failed. The incision behind the auricle rapidly healed without producing pus, which apparently proves that it is not necessarily essential that pus need be found to insure relief. The inflammation here had evidently not gone beyond the hyperæmic stage, and was aborted by the timely use of the scalpel.—*Boston Medical and Surgical Journal.*

Editorial.

THE recent change in the editorial department of this journal, which will be noticed, renders it necessary that we should here shape our work for the future, and in promising to continue all the *good points* which have so deservedly made the WESTERN LANCET the leading medical periodical on this coast, we also undertake, by increased labor and cost, to bring this publication, of which its promoters are so justly proud, to a condition of usefulness and interest inferior to no medical journal in America.

The past arrangement of subjects into Surgical, Institutes and Practice, Obstetrics, Diseases of Women and Children, Ophthalmology and Otology, we will continue, as convenient and systematic, but we propose to give Ob-

stetrics and Diseases of Women and Children a much more prominent place than heretofore; and as experience teaches that nearly two thirds of the patients of every physician in general practice is from this class, it is desirable that the utmost efforts should be made to collate and digest here for public use every fragment of authentic information that the progressive genius of our profession may develop, to its advantage, in either this country or abroad; and whenever the interest of a subject or its novelty of treatment will justify the space, we shall insert foreign reports, original papers, or such copious extracts therefrom as will present a comprehensive view of the subject, so that the WESTERN LANCET will, as far as practicable, be a *multum in parvo* of medical journalism.

We realize that in publications of this character, editorial specialties are apt to predominate to the exclusion of other and often more important subjects, but the present editors have entered upon their duties with a firm determination to avoid all grooves; and while they guide the future course of this journal, it shall be impartially the viaduct of medical science, the advocate of beneficial discoveries, the exponent of well-founded theories, and the herald of successful experience, in *all branches* of the profession. We shall unhesitatingly expose quackery and charlatanism in every department; we will be conscientious in our duties, independent in our course, and fearless of consequences; but we hope to so temper these with justice and courtesy, that our pages shall never become the instruments of either imposition or malice.

Photographic plates, illustrative of subjects, will be continued, regardless of expense, whenever the report in hand demands it, or we deem them essential to the illustration of surgical or clinical principles.

Fully appreciating the labors of our predecessors in starting this journal, when, as a new enterprise, it had to struggle with opposition, jealousy and indifference, and appreciating, too, the skill and efficiency with which they conquered success, and achieved a result so flattering to their pride, we yet hope to materially add to its usefulness and influence during the coming year.

The Pacific Medical and Surgical Journal of April contains an editorial article under the head of "Our Medical Schools," which is a condensed repetition of the remarks of the senior editor, made at the banquet given by the "Sacramento Society for Medical Improvement," at the conclusion of the labors of the State Medical Society, at its recent meeting held in Sacramento City.

There is a strange inconsistency or incongruity characterizing said article; for in the first paragraph allusion is made to the existence of "two rival schools," whilst the third preceding article is devoted to the praiseworthy effort of proving that rivalry is "professional self-abuse," to which we heartily respond Amen—but the two statements are to us utterly irreconcilable.

The author of this article, "Our Medical Schools," fully sustains the character that has so eminently distinguished him for the past half century throughout. He first compliments the Board of Regents of the University, as follows: "That the design of this movement to consolidate the medical schools is a good one"—and in the very next paragraph insults them by asserting that "they have unwittingly lent themselves to a trick unworthy of a dignified institution of learning such as the University of California." The next paragraph reads as follows: "Those professors (of the Medical College of the Pacific) had been approached on the subject, and had peremptorily declined the proposed coalition, because, among other reasons, it would have required them to abandon a flourishing school, which they had built up with much care and labor. They had a well-tried and harmonious faculty of experienced teachers; they had a large and growing class of students, composed of the best material; they had a desirable central location; they had all proper anatomical and clinical facilities; they had a liberal foster parent in the University City College." To all of which we respond, "so mote it be."

But we propose to consider these assertions *ad seriatim*—1st. That "those professors had been approached on the subject, and had peremptorily declined the proposed coalition."

This we refute by the assurance, which is susceptible of proof, that "those professors" were not a unit in their act of declination, nor was even their President (who is a medical man) in sympathy with the recognized *ruling power;* but he, as well as at least two of the faculty, in the most earnest manner advocated the union. 2d. "They had a well-tried and harmonious faculty of experienced teachers" —which we sum up to consist of three who have taught upwards of three years, three who have not yet taught three years, one who has undertaken to teach two years, and one who has never taught at all. They have been "harmonious" with the exception of one or two members, through that amiability of character which is sometimes erroneously styled mutual admiration, or it may be through the same rule that enabled the "old woman that lived in a shoe" to control her children.

3d. "They had a desirable and central location"—which is about ten or fifteen minutes nearer the hospital than is the university—which costs the student that amount of time, but not a cent of money, whilst the Medical Department of the State University has a decided advantage in location for the purposes of dissection, being at North Beach, with fresh air, perfect drainage, and a cool, well-ventilated dissecting room, instead of being like the "Medical College of the Pacific," situated in the most thickly settled portion of the city, with the "facilities" alluded to, constituting a nuisance to both the class of students and the neighborhood.

4th. "They had a liberal foster parent in the University City College." We must here stop, and earnestly congratulate them upon their success in finally having found a "liberal foster parent"—for liberality never before entered as an element in the body corporate of this "harmonious faculty;" certainly it has in no wise distinguished them when they have been, as it were, like a ball propelled by a certain force, bounding from one "foster parent" to another (now some three times in as many years), until its force has been expended, and it finally settles down like a "well-spent ball," and recognizes for the first time that it has found a "liberal foster parent;" liberal for the reason that

it has released it from a yoke in the shape of a monthly rental, in consideration of which the college has changed its name and allegiance from the "Medical Department of the University of the Pacific," a Methodist institution, to the "*Medical College* of the Pacific," and allegiance to the University CITY College—a Presbyterian institution.

In this summersault movement its early graduates are left without an "Alma Mater," and the faculty have likened themselves to Japhet, who was so long in search of a father.

We are told that under these circumstances they were not inclined to "abandon a certainty for an experiment," when the truth is, they have been experimenting annually for the past three years, until, according to their own confession, they have finally found a "liberal foster parent," who has been peculiarly successful in anchoring them; but, like a ship, they will no doubt continue to swing the stern of their craft in accordance with the tide of favor, or public opinion.

But the article in question goes on, in the same meek and modest style that characterizes it throughout, to say that "it was supposed that by making and proclaiming the appointments, the "Medical Department of the University of the Pacific, *vide* "Medical College of the Pacific," *vide* "Medical Department of University College," *vide* "University City College," would be forced into the measure, or at least that its professors would have to bear the stigma, of factiousness by refusing.

"To squelch the Medical College of the Pacific was the avowed purpose of the movement, which was carried through the Board of Regents by dexterous management." What the real motive of the Regents was we do not know, but if it was such as the author of "Our Medical Schools" imputes, then we again say *Amen*, for in our judgment no higher or holier object could have impelled them. That the gentlemen composing the faculty of the "Medical College of the Pacific" are able and estimable men, no one is disposed to doubt, but that the existence of two schools in California, with the meagre field furnished from which to draw a class, is desirable, is simply ridiculous, and tends to give rise to a very plausible suspicion under the present

circumstances (namely, a refusal to coalesce), that the gentlemen composing said faculty are actuated, not by a love for or devotion to the cause of medical education, or the advancement of the great central institution of the State, but rather by a venal desire to promote their own personal or individual interests in any manner that their independence of the control or influence of a State Board of Regents may open the way to, whether it be through the prostitution of their noble profession and "liberal foster parent," by *grinding out* doctors in a machine-like manner, without reference to qualification—for a consideration, for the duping of inexperienced students through the unblushing, shameless and false announcement already flaunted by them before the public eye, "that the State University are without the power of conferring degrees," whilst "the Medical College of the Pacific not only have the power, but possess, in common with its competitor, the privilege of recommending its candidates for graduation to the Board of Examiners of the State University."

We do not charge any of these motives upon the faculty of the "Medical College of the Pacific," but we do say that their action in declining to second the Regents in their effort to build up a permanent institution on this coast, furnishes reasonable ground for suspicion; and, further, the very extraordinary measures adopted by them in first declining, then proclaiming it at a public banquet, then publishing it in the daily papers, then again devoting several pages of their organ, the *Pacific Medical and Surgical Journal*, to a reiteration of it, and finally publishing an additional letter-sheet circular devoted to the same theme and object, is at least evidence that they are indulging, to use the language already referred to, in "professional self-abuse."

The palpable aim of all these publications is to create the impression, and give circulation to the same, that "a student of their college will have the opportunity of receiving a diploma from either University;" or, if they should pass the examination in the State University, they may procure also a diploma *ad eundem* from their own school

(a thing without precedent), thus placing the State University in a secondary position in relation to their own—the object of this effort, though covered with a thin gauze of plausibility, is too obvious to need comment, and requires no other refutation from us than the mere statement that it is not reasonable to suppose that the Board of Regents of the University of California will permit the institution over which they preside to be second to any in this State or in the United States, and that a proper guarantee will be furnished its classes, is a fact beyond all question.

California State Dental Society.

The above society held their annual meeting in this city last week, but adjourned too late for us to give any of the details. Prof. Gilman, of the State University, addressed them as to the feasibility of having a dental department in connection with the medical and pharmaceutical departments of the University of California. In our next number we expect to give a full report of the proceedings.

Miscellaneous.

The Death of Baron Liebig. By Professor Charles A. Joy.

The death of Baron Liebig will create a profound sensation throughout the civilized world. No scientific man was better known, and none had rendered a greater service to the popularization of knowledge than he. Wherever books are read and journals are printed, his name has become familiar as a household word, and his opinion has always been regarded as worthy of the highest authority. The part played by this distinguished chemist is worthy of something more than a passing notice, and I propose to address myself to the task of giving some account of what he has done.

Justus Liebig was born in Darmstadt, May 13, 1803. His parents were poor, and, if it had not been for Government aid, he could never have sustained himself at school, but would have been compelled to learn a trade. The boy early developed a taste for natural history, and his father encouraged this indication by permitting him to study under the direction of a pharmacist in a neighboring town, but a desire to obtain a more thorough education, prompted young Leibig to apply to the Minister of Instruction for assistance from the public fund. I have heard him relate his experience with this high official. When he applied at the palace, it was only after repeated efforts that he was permitted an audience, and, at the first interview, the minister declined to grant the request; nothing daunted, he kept on repeating his calls until the officer, in self-defense, was compelled to put the boy on the stipend. In this way Liebig gained admittance to the Gymnasium, and was able to go through the preparatory course for admission to the University. While at the Gymnasium, he and another boy fell into considerable discredit with the director for presuming to develop tastes for something besides the classics. The director was in the habit of asking the boys what they intended to be if they lived to grow up, and when he came to Liebig, he invariably received the answer: "I intend to be a chemist;" whereupon the pedagogue would say, "You stupid boy, there is no such pursuit as chemist;" to the other lad, who desired to be a musician, he could hardly give a similar answer, although he assigned to both of them places at the foot of the roll. Liebig told me that many years afterward he came across his companion in disgrace, and found him to be the most popular musical director in the city of Vienna.

Having completed the course at the Gymnasium, Liebig studied at Bonn and Erlangen, and subsequently received the degree of Doctor of Philosophy and Doctor of Medicine. In the early part of 1823, when only twenty years of age, he went to Paris, hoping to obtain access to the laboratory of Gay-Lussac (born 1778, died 1850); it was a hazardous thing for a poor student to undertake, but he felt that work was in him if he could secure an opportunity to bring it out. The early stages of his career in Paris were the most trying of his life. Without money, without patronage, with nothing but youth and a resolute will to sustain him, his case appeared to be forlorn in the extreme, and he was wont to say that his whole career might have been cut short, and his name never have become known, if it had not been for the fortunate acquaintance of Alexander Von

Humboldt, formed at a meeting of the French Institute. Gay-Lussac was much interested in the subject of cyanagen, and young Liebig had prepared compounds analogous to the cyanides, in which he thought he had discovered a new acid. One of the members of the Institute promised to read his paper on the subject and exhibit the specimens, but like the Minister of Instruction of Darmstadt, it was only after repeated warnings and entreaties that he consented to keep his engagement. The subject was finally presented and attracted considerable notice. After the adjournment a gentleman whom Liebig did not know, came up to the table to speak to him and to inquire into his history, and, being pleased with his intelligence and modest deportment, invited him to dinner.

Young Liebig was too much embarrassed to ask the name of his host, and as he left the house inquired of the doorkeeper who that gentleman was. The doorkeeper replied that a good many persons had passed out, and he could not say to which particular one he referred; moreover, as Alexander Von Humboldt had just returned to Paris from a long journey, very few persons were aware of his presence in the city. Liebig could not keep his appointment with Humboldt, as he did not know where to go, but as soon as he learned the name of his benefactor he at once called on him, and from this acquaictance with Humboldt he dates the commencement of his prosperity. Upon Humboldt's recommendation, Gay-Lussac received Liebig as a pupil in his laboratory, and the two remained ever afterward firm friends. The fame thus early acquired by Liebig soon reached his native land, and he was invited in 1824, at the early age of twenty one, to accept the chair of chemistry at the University of Giessen. This university was destined to become the principal field of his usefulness and renown. It was here that he established his celebrated school of chemistry, and it was in the laboratory, built under his direction, that he made the researches which have so greatly enriched our knowledge and been of such vast importance to the well-being of mankind. At this early period there was no school for chemistry in the world. There were private laboratories where a few favored students could obtain instruction, the most celebrated of which was in Sweden, under the direction of Berzelius, but such an institution as a school for chemistry was unknown until founded by Liebig. If Liebig had conferred no other benefit upon the world than this one act of establishing a systematic course of instruction in chemistry, it would have been sufficient to establish his claim to a prominent place on the list of benefactors of the race. The

school was a means to an end, and enabled him to carry out the investigations and researches which have proved of so much importance to the progress of the science. The laboratory of Giessen became a hive of busy workers. Hoffmann, Strecker, Will, Fesenins, Whitney, Gibbs, Horsford, and a host of others, here laid the foundations of their knowledge and subsequent fame. The Giessen school served as a model for similar institutions all over the world, and the way having been once pointed out, it was rapidly followed and considerably improved as the years rolled by. Plans of the laboratory were engraved to supply the constant demand for them, and architects were sent from many countries to study the new arrangements preparatory to their construction, at distant universities and schools. Although numerous modifications have been suggested by experience, yet, upon the whole, the original plan of Liebig has been retained, in a majority of laboratories, with such changes as modifications in the constructions of furnaces, the introduction of gas and improvements in apparatus, may have required. There is no question that while laboratory practice was of great value to students, the work accomplished by some of the more advanced scholars was of equal service to Liebig in enabling him to institute numerous researches which it would have been physically impossible for him to accomplish alone. It was sometimes necessary to make a large number of analyses in order to ascertain the accuracy of methods or to prove the correctnsss of theories, and in the early stages of chemical research, much more of this work was required than at the present time. In the course of time a rich store of observations was accumulated at the Giessen laboratory, which became available to chemists elsewhere, and this supply of material has since been largely added to by other laboratories in various parts of the world.

Liebig's industry in the preparation of original papers and in the publication of books was remarkable. The number of independent articles published in various journals does not vary far from 350, and his books, from his "Introduction to Organic Analysis" down to the last edition of his great work on "Agricultural Chemistry," number about thirty volumes. In addition to this, he did a great deal of editorial work upon Geiger's Handbook, the yearly reports on the progress of chemistry, the annals of chemistry and pharmacy, and the scientific journals of the day.

The great aim of Liebig was to popularize science. To this end, he wrote his famous "Letters on Chemistry," which first appeared as an extra sheet in a weekly newspaper, and were afterwards collected in book form, and trans-

lated into every European language. No letters have been more generally read or have excited greater popular enthusiasm than these. They are perpetually quoted and criticized, and thus their subject matter has been presented in a great variety of shapes, until the views originally held by Liebig have been unconsciously everywhere adopted, although he himself greatly modified some of them, as subsequent research shed new light upon the subject. It has been said that Liebig was very hasty in drawing conclusions from imperfect premises. This may have been in a measure true; and when we consider how numerous these theories were, it is surprising that more of them were not overthrown. If Liebig was hasty in expressing an opinion, he was equally ready to retract when convinced that it was erroneous. I once had a conversation with him on this point, and he spoke of the fear some scientific men had of being caught in a mistake. He considered errors inevitable and inseparable from the accomplishment of any scientific work, and it was on this occasion that he made the oft-quoted remark, "show me the man who makes no mistakes, and I will prove to you that he does nothing." It is easy enough for a scientific man who publishes nothing, but only criticizes others, to escape the charge of committing errors, and for such persons Liebig entertained a wholesome contempt. What he desired, above all things, to know, was the truth, and when he thought he had discovered it, he was anxious to give the benefit of it to the world. It would occupy too much space to undertake to give a history of the work accomplished by this great man. The chief points of it can, however, be compressed into a small compass. He pointed out the way to conduct the analysis of organic bodies, and to establish for them rational formulas. In conjunction with Woehler he accomplished the synthesis of organic bodies, and thus did what Berzelius pronounced to be impossible. He introduced chemistry into the study of physiology, and thus created a revolution in that branch of science, and in the department of agriculture, did more to place that pursuit upon a scientific basis than any man who had preceded him.

Pharmacy, physiology, agriculture and synthetical chemistry owe a tremendous debt of gratitude to the illustrious Liebig. After devoting nearly thirty years unremittingly to the Giessen school, Liebig received a call from the King of Bavaria to go to Munich. In 1852, on the occasion of a visit I made to him, in company with Professor Henry Rose, I found him engaged in packing up his papers, preparatory to removal to Munich. His favorite pupil, Pro-

fessor Hoffmann, now in Berlin, was assisting him in arranging his letters, and on the occasion of our visit Liebig read to us a number of letters he had received from Berzelius, which showed the sincere respect the great Swedish chemist entertained for the man who had not been his pupil, but whom he looked upon as a most worthy colleague. Liebig subsequently accompanied us to his laboratory, where he exhibited to Rose a number of delicate tests he had just discovered. Liebig was very loth to leave Giessen. The inhabitants had shown their appreciation of his worth by presenting him a valuable house and garden, and it was here that his children were born and his fame as a chemist had been established. The necessity for such rest as could only be attained by a change of residence was, however, fully impressed upon him, and he decided to accept the invitation of the King of Bavaria. After going to Munich, Liebig only received such pupils as could aid him in his researches. The work that chiefly occupied him, was a careful revision of his book on agricultural chemistry, a controversy with Pasteur on the subject of fermentation, and the introduction of extract of beef, as a cheap food for the poor. A desire to benefit his fellow men characterized the labors of Liebig during the last years of his life. The study of a method of silvering glass was instituted out of a wish to rescue from disease the poor victims of mercury poisoning, who were engaged in the manufacture of quicksilver mirrors. The extract of meat he hoped would secure a cheap and wholesome food for the poor, and furnish an invaluable remedy for invalids and convalescents. Latterly his mind was full of similar schemes of beneficence, and his last publications all look to the dissemination of correct scientific information on the common affairs of life. It ought not to be forgotten in this connection that Liebig was the first person in Europe to prepare chloroform, and it was he who discovered the hydrate of chloral—the two great anæsthetic and hypnotic agents now so largely employed to alleviate the suffering of mankind.

In his personal relations I have always found Liebig to be full of urbanity and hospitality. I am aware that many Germans complained of his imperious and haughty manner, and he was often assailed by disappointed chemists on this score, but to any one really in earnest, he always appeared to me ever ready to lend a helping hand. He was a man who kept up with the literature of the day, and could converse fluently and well on any of the topics likely to be presented in the high circles in which he moved. Every summer he was in the habit of going to some quiet place among

the mountains for relaxation, and on these occasions always contrived to make up a whist party of the most distinguished professors in Germany. I once spent a week with one of these parties when it was composed of Liebig, Woehler, Clausius, Schoebein, and Hans Christian Anderson, and it was pleasant to see men of such renown in their moments of rest and recreation. The liveliest of them all was Schoenbin, but Leibig was equal to any of them in repartee and anecdote. It was on this occasion that Liebig related to me many of the incidents of his life which are recorded above. The scientific men who were the cotemporaries and fellow workers with Liebig, have nearly all passed away. Henry Rose, Mitscherlich, Erdmann, Magnus, Gmelin, Haidinger, Schoebein, Faraday, Oersted, Pelouze, have ceased their labors, and there remain Woehler, Gustavus Rose, Poggendorff, Mulder, Dumas—not lingering superfluously on the stage, but still actively engaged in the promotion of scientific knowledge.

A new generation is springing up to whom Liebig has left a legacy of inestimable value in the example he has set of obstacles overcome, of work accomplished, and of benefits rendered to his fellow men. At the good old age of nearly three score years and ten he has been gathered to his fathers, honored and loved of all who knew him.—*Journal of Applied Chemistry.*

Gleet Treated with Medicated Bougies.

G. Lorey gives the results of eighty cases of gonorrhœa and gleet treated by this means. The cases of gleet, twenty in number, were all cured in a short time; the longest course included twenty-two bougies, one a day, and the shortest three bougies, the average being nine. The author observes that these cases, being treated in a hospital, doubtless derived benefit from the regular life there; it is not uncommon for a gleet to be greatly exacerbated by a long walk, slight excess in drinking, or a single act of coition. The bougies used were seven and a quarter inches long—*i. e.*, about the length of the urethra—and from one eighth to one sixth of an inch in diameter. The centre was of gelatine, the outside of gum arabic, mixed with the medicine, three fourths of a grain each of sulphate of zinc and belladonna. After being dipped in cold water, they are easily inserted. In the sixty cases of gonorrhœa, no such startling results followed. The bougies served as well as the

ordinary injections to cut short the disease—no better. But for two of the incidents of gonorrhœa, pain in making water and nocturnal erections, bougies medicated with opium (three fourths grain), or opium and belladonna (*aa*, three fourths grain), acted admirably. Put in at night, they insure comfortable rest and easy micturition in the morning. It has been urged that, like permanent bougies, they might produce orchitis; but they are dissolved in the course of an hour and a half, and no orchitis occurred in any of the eighty cases observed by M. Lorey.—*Annales de Dermatologie et de Syphilographie*, November, 1872.

Carbuncle.

The *Belgian Scalpel* contains a suggestion from J. Guérin relating to the use of the hypodermic syringe in emptying carbuncles. Pushing the canula into the middle of the tumor and drawing the piston, the pus, if there be any, will of course enter the syringe. This may then be detached from the canula, which is left sticking in the flesh, emptied; and so the process is repeated as often as necessary. It is not claimed that the method has any advantages over the crucial incision, except that it is less painful, and so better suited to timid patients.—*Mouvement Medical*, January.

Fluid to Restore Putrid Tissues.

Dr. B. W. Richardson gives the following formula for a restorative fluid, which he says will render soft, putrid tissues, firm and inoffensive, so that they may be readily dissected: ℞.—Iodine ʒ i.; methylated ether, sp. gr. .720, f ℥ x.; absolute alcohol, f ℥ x.; strong sulphuric acid, f ℥ iv. Dissolve the iodine in the ether and alcohol mixed together, then slowly drop in the sulphuric acid.—*New Remedies.*

Carbolic Acid in Gonorrhœa.

Mr. John Ashmead states that he has been using, for the last five months, carbolic acid in combination with glycerin and tannin, as an injection in cases of gonorrhœa, and has found it quite as efficacious as Mr. Wood described in a

former contribution. The formula employed consists of eight grains of carbolic acid, eight grains of tannic acid, haff an ounce of glycerin, and water to one ounce. It appears to act as an antiseptic, arrests the discharge, and shortens the course of the disease.—*Medical Examiner.*

Blood in the Urine.

Blood is very rarely seen in simple cystitis, but it is as common in vesical calculus, as hæmoptysis is in phthisis, and is especially common after some exertion, as driving or riding. Blood from this cause is rather florid in tint, whilst blood passed from the kidney remains long in the bladder, and from contact with urine, is brown in color. Hemorrhage may also occur in hypertrophy of the prostate. *Braithwaite's Restropect.*

How to Cure a Cold.

One of our citizens, who has been troubled with a severe cold on the lungs, effected his cure in the following simple manner: He boiled a little boneset and hoarhound together, and drank freely of the tea before going to bed. The next day he took five pills, put one kind of plaster on his breast, another under his arms, and still another on his back. Under advice from an experienced old lady he took all these off with an oyster knife in the afternoon, and slapped on a mustard plaster instead. His mother put some onion drafts on his feet and gave him a lump of tar to swallow. Then he put some hot bricks to his feet and went to bed. Next morning another old lady came in with a bottle of goose oil, and gave him a dose of it in a quill, and an aunt arrived at about the same time from Bethel, with a bundle of sweet fern, which she made into tea and gave him every half hour until noon, when he took a big dose of salts. After dinner, his wife, who had seen a fine old lady of great experience in doctering, on Franklin street, gave him two pills of her make, about the size and shape of an English walnut, and two tablespoonfuls of home-made balsam to keep them down. Then he took half a pint of hot rum at the suggestion of an old sea-captain in the next house, and steamed his legs with an alcohol bath. At this crisis two of the neighbors arrived, who saw at once that his blood was out

of order, and gave him half a pint of spearmint tea, and a big dose of castor oil. Before going to bed he took eight of a new kind of pills, wrapped about his neck a flannel soaked in hot vinegar and salt, and had feathers burnt on a hot shovel in his room. He is now thoroughly cured, and full of gratitude. We advise our readers to cut this out and keep it where it can be readily found when danger threatens.—*Danbury News.*

Treatment of Asphyxia.

The *Gazette* publishes a paper presented at the Academy of Sciences by M. G. De Bon, on the subject of the treatment of asphyxiated (especially of drowned) people. Artificial respiration is to be kept up by raising the arms; and it is well to immerse the body in a bath warmed to 98½° Fahr. Blowing into the mouth is an excellent way to inflate the stomach, but that does not seem to favor at all the aëration of the blood. If the stomach is to act as a life-preserver, it must be inflated before entering the water. Pressure on the sternum is dangerous, tending to put a stop to the movement of the heart. After four or five minutes' submersion, all efforts at resuscitation are futile. Artificial respiration may be kept up, and the heart may be roused to act by an interrupted galvanic current, but nothing follows, because a large clot has already formed in the heart; and, until we devise some way to dissolve this clot, the blood cannot be made to flow. If it is true that persons have come to life after remaining more than five minutes under water, we suppose that fright caused sudden syncope, and thus suspended the effort to breathe, and the action of the heart.—*Gazette Hebdomadaire*, December 13th, 1872.

Pathology of the Horse Disease.

Prof. Gross, at the Jefferson College, clinic, recently exhibited the *post mortem* specimens obtained from a horse which died during the late epidemic, upon which he made the following remarks:

"The horse was of medium size, and fourteen years old; He had been previously healthy during seven years in the service of Dr. Maxwell, his last owner. During the prevalence of the horse disease, he suffered in common with his soliped brethren, and, although treated with the

greatest care, he relapsed when apparently convalescent, and died. This may be taken as a typical case of death from from the disease, complications having been avoided by the treatment.

"The examination, carefully made by Mr. West, disclosed a large quantity of serous fluid in the thoracic cavity; the lungs were partially adherent, and a section sank in water, showing a condition of infiltration or heptization. In the trachea and larger bronchial tubes, spots of lymph and numerous ecchymoses, indicated the severity of the inflammation, and the mucous membrane, as far as the interior nares, was discolored and covered with a muco-purulent secretion. Many of the bronchial lymphatic glands were enlarged. There was no evidence of disease discovered in the œsophagus or remaining viscera, and death evidently resulted from pleuro-pneumonia. The sweeping character of this disease, and its rapid spread over the continent, lead me to consider it of the nature of dengue. It is not communicable by ordinary contact; the morbific germs float in the atmosphere, making it epidemic rather than contagious."—*Philadelphia Medical Times, December* 14, 1872.

We insert the following letter in regard to the establishment of the Hopkins Hospital in Baltimore and the foundation of a medical school and university. Such an act of munificence has, we believe, never before been performed in this country. The donor, Mr. Hopkins, is a member of the Society of Friends.—ED.

BALTIMORE, March 10, 1873.

To Francis T. King, President, and the Trustees of "The Johns Hopkins Hospital:"

GENTLEMEN: I have given you, in your capacity of trustees, thirteen acres of land, situated in the city of Baltimore, and bounded by Wolfe, Monument, Broadway and Jefferson streets, upon which I desire you to erect an hospital. It will be necessary to devote the present year to the grading of its surface, to its proper drainage, to the laying out of the grounds, and to the most careful and deliberate choice of a plan for the erection and arrangement of the new hospital buildings. It is my wish that the plan thus chosen shall be one which will permit symmetrical additions to the buildings which will be first constructed, in order that you

may ultimately be able to receive 400 patients, and that it shall provide for an hospital which shall, in construction and arrangement, compare favorably with any other institution of like character in this country or in Europe. It will, therefore, be your duty to obtain the advice and assistance of those at home or abroad who have achieved the greatest success in the construction and management of hospitals.

I cannot press this injunction too strongly upon you, because the usefulness of this charity will greatly depend upon the plan which you may adopt for the construction and arrangement of the buildings. It is my desire that you should complete this portion of your labor during the current year, and be in readiness to commence the building of the hospital in the spring of 1874. It will be your duty hereafter to provide for the erection, upon other ground, of suitable buildings for the reception, maintenance and education of orphan colored children. I direct you to provide accommodation for three or four hundred children of this class; and you are also authorized to receive into this asylum at your discretion, as belonging to such class, colored children who have lost one parent only, and in exceptional cases, to receive colored children who are not orphans, but may be in such circumstances as to require the aid of the charity. I desire that you shall apply the yearly sum of twenty thousand dollars, or so much thereof as may be necessary, of the revenue of the property which you will hereafter receive, to the maintenance of the Orphan's Home, intended for such children.

In order to enable you to carry my wishes into full effect, I will now, and in each succeeding year during my life, until the hospital buildings are fully completed and in readness to receive patients, place at your disposal the sum of $100,000.

In addition to the gift already made to you of the thirteen acres of land in the city of Baltimore, upon which the hospital will be built, I have dedicated to its support and to the payment of the annual sum provided to be paid for the support of the Orphans' Home, property which you may safely estimate as worth, to-day, $2,000,000; and from which your corporation will certainly receive a yearly revenue of $120,000, and which time and your diligent care will make more largely productive.

If the Hospital and Orphans' Home are not built at my death, it will be your duty to apply the income arising from this property to their completion. When they are built the income from the property will suffice for their maintenance.

The indigent sick of this city and its environs, without

regard to sex, age, or color, who require surgical or medical treatment, and who can be received into the hospital without peril to the other inmates, and the poor of the city and State, of all races, who are stricken down in any casualty, shall be received into the hospital without charge, for such periods of time and under such regulations as you may prescribe. It will be your duty to make such division of the sexes and patients among the several wards of the hospital as will best promote the actual usefulness of the charity.

You will also provide for the reception of a limited number of patients who are able to make compensation for the room and attention they may require. The money received from such persons will enable you to appropriate a larger sum for the relief of the sufferings of that class which I direct you to admit free of charge, and you will thus be enabled to afford to strangers, and to those of our own people who have no friends or relatives to care for them in sickness, and who are not objects of charity, the advantage of careful and skillful treatment.

It will be your especial duty to secure for the service of the hospital surgeons and physicians of the highest character and of the greatest skill. I desire you to establish, in connection with the hospital, a training school for female nurses. This provision will secure the services of women competent to care for the sick in the hospital wards, and will enable you to benefit the whole community by supplying it with a class of trained and experienced nurses.

I wish the large grounds surrounding the hospital buildings to be properly inclosed by iron railings, and to be so laid out and planted with trees and flowers as to afford solace to the sick, and be an ornament to the section of the city in which the grounds are located. I desire that you should, in due season, provide for a site and buildings of such description, and at such distance from the city as your judgment shall approve, for the reception of convalescent patients. You will be able in this way to hasten the recovery of the sick, and to have always room in the main hospital buildings for other sick persons requiring immediate medical or surgical treatment.

It is my special request that the influences of religion should be felt in and impressed upon the whole management of the hospital; but I desire, nevertheless, that the administration of the charity shall be undisturbed by sectarian influence, discipline, or control.

In all your arrangements in relation to this hospital you will bear constantly in mind that it is my wish and purpose that the institution should ultimately form a part of the

Medical School of that university for which I have made ample provision by my will. I have felt it to be my duty to bring these subjects to your particular attention, knowing that you will conform to the wishes which I definitely express. In other particulars I leave your board to the exercise of its discretion, believing that your good judgment and experience in life will enable you to make this charity a substantial benefit to the community.

I am, very respectfully, your friend,

JOHNS HOPKINS.

A Cement to Fasten Wood to Other Materials.

It is often necessary to fasten objects of wood to others of metal, glass, stone, etc. The following cement, according to Dr. Ellsner, perfectly answers the purpose: Good cabinet-makers' glue is warmed up with water to the consistency necessary to connect wooden objects; then add enough sifted ashes to bring it to the thickness of a varnish. The cement should be applied to the surfaces of the objects to be united when warm, and then they should be pressed together tightly. After cooling and drying, the surfaces are so strongly united as to require great force to separate them. Grinding stones fastened on wood, and handles to painters' stones for grinding colors, have been used for more than a year without any appearance of fracture.—*Journal of Applied Chemistry.*

Book Reviews.

We have received the first number of the *Obstetrical Journal* of Great Britain and Ireland, published in London, and republished in Philadelphia by Henry C. Lea, with an American supplement. It has for contributors such men as Spencer Wells, Dr. Robert Barnes, J. Matthews Duncan, Graily Hewett and several other as well-known names. In the prefatory note, the editors say:

"The establishment of this journal was suggested by two facts—the large number of medical practitioners interested

in Midwifery and the treatment of the Diseases of Women and Children, and the insufficient space allotted to these subjects in the general medical periodicals. It is not a new idea. In 1848 the *British Record of Obstetric Medicine and Surgery* was published in Manchester, and appeared fortnightly for eighteen months; and during the last few years several proposals to print a similar periodical have been made. The present undertaking has not been entered into without due consideration. We have personally or by letter consulted nearly all the leading Obstetricians in England, Scotland, and Ireland, and we may say, with one exception, which proves the rule, that the project has met with unanimous approval. It may be roughly estimated that there are a thousand Fellows and Members of Obstetrical Societies in this country, and many thousands of general practitioners specially interested in Obstetric Medicine. The cause of this lies in the fact that two thirds of most medical men's work consists of attendance upon women and children; and this being the case, it can be easily understood why there should be a demand for a proportionate amount of information to enable them to perform their duties successfully. The request is fair and just. The knowledge upon which a man's reputation and bread depend should be supplied without stint—he must have it, and he will seek it elsewhere if he cannot find it in the present medical journals. It is not the fault of their editors that such a want exists, and we would not be thought to be imputing blame to them. We believe the medical press of this country is unsurpassed in scientific value and moral purity and integrity; it is a sheer want of space which renders it impossible for a subject as large as ours to be comprehensively handled in the already crowded columns of medical papers. Our endeavor will be to remedy this deficiency. We disclaim any attempt to separate ourselves from the general professional body. It is made up of medical men practicing by accident or inclination various divisions of the same science; and these members form one united Faculty, just as much as soldiers, whether they be artillery, cavalry, or foot, form one army. Historically and practically there ever has been, and ever must be, three great branches of Medicine—Physic, Surgery and Obstetrics; and each of these again must have its ramifications, increasing yearly in number and strength. This mode of growth is as natural to a science as it is to a tree, and its absence in either is a symbol of death. Since the mind of man is limited, we hold that the interests of humanity are best served by our devoting, after having mastered its general

principles, special attention to one of the departments of a science. By so doing and recording our observations, a mass of new information is accumulated which could not be obtained in any other way. We hope to perform the office of collecting and preserving every improvement and discovery in Obstetric, Gynecic and Pediatric Medicine; and, while we at the same time shall endeavor strenuously and loyally to uphold the honor and interests of our particular branch of the profession, we shall never forget that we are members of one beneficent medical Brotherhood.

We have also received the "*Transactions of the Medical Society of New York State,*" for 1871, being the sixty-fifth annual meeting of the Society. The volume is of more than usual interest, its 490 pages being filled, with hardly an exception, with valuable papers.

The permanent Secretary, Dr. Bailey, has given more than the customary space to the debates held, and the committee have shown much discrimination in the selection of papers for publication. Unlike the medical societies of some of the other States, that of New York does not feel bound to print everything read before it, and the result is a volume of value, the size of which each year, varies with the amount of profitable matter presented. In the present issue, we have, in addition to the addresses, a paper on "Luxation of the elbow," by Dr. L. A. Sayre; on "Anæsthetics," by Dr. E. R. Squibb; on "494 cases of diseases of the ear," by Dr. D. B. Roosa; on "Divergent Squint," by Dr. C. R. Agnew; on "Prolapsus Uteri," by Dr. T. A. Emmet; on "Urethrocele, Catarrh and Ulceration of the Bladder in Females," by Dr. N. Bozeman; on "A Vertebrated Probe and Catheter," by Dr. Sayre; on "Insanity," by Dr. J. P. Gray, and many other papers of equal value, together with obituaries of former members of the Society, and a list of all the county societies, and their members, throughout the State. There are twenty-seven original, professional papers in all, and the volume should be in every professional library, the owner of which desires to keep *au courant* with the professional literature of the day.

THE

WESTERN LANCET:

A JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

FOR JUNE, 1873.

Surgery.

ART. I.—*Skin Grafting.* By H. H. TOLAND, M. D., Professor of Clinical Surgery, University of California.

Being satisfied with the result of the operations performed during the last two years, of grafting or transplanting the entire skin in simple ulcers, as well as those resulting from burns (the plates of which with the manuscript have been presented to the State Medical Society, and will appear when their transactions are published), recently I have determined to ascertain whether the same treatment would succeed in cases of a specific character.

Samuel S. was admitted into ward B at the County Hospital, February 2, 1873, with a callous syphilitic ulcer of the right leg, which was of six years standing. He had suffered from nodes, rheumatism and, indeed, from all the symptoms of secondary and tertiary disease. The ordinary anti-syphilitic course of treatment was prescribed, and continued from February until the fifteenth of May, without any decided improvement, and then I removed with his consent a portion of skin half an inch wide and one inch and a half in length, from the inner surface of which every

portion of the cellular tissue was removed by one of the students. The strip removed was then washed, divided into three pieces, and applied to the ulcer, one near each extremity, and the third in the centre. They were secured by adhesive plasters, and when they were removed in seven days, the cuticle adhered to the plasters, and I supposed the operation was a failure. But to the astonishment of myself and a number of the class—who witnessed the operation—cicatrization had commenced at every point to which the skin was applied; the character of the ulcer has greatly improved, and I now feel confident that with a proper constitutional treatment such ulcers can be healed as speedily as those of a more simple character, except when under the care of men who, from either prejudice or policy, refuse to prescribe the only medicine known to the profession that will eradicate this terrible disease. I feel for any man who pretends to treat such diseases without the use of mercury. All the most popular syphilographers in the world advocate its use, and any physician who fails to avail himself of its specific effect may humbug the community for a time, but he cannot establish a permanent reputation.

ART. II.—*A Case of Compound Comminuted Fracture of Forearm.* By A. A. O'NEIL, M. D., Professor of Anatomy in the University of California.

The great amount of injury the human body may suffer and still recover its proper function, particularly in young and healthy persons, has for years engrossed so much the attention of the medical world, and attained to so much importance as almost to constitute in Surgery a separate domain, or, as it has been termed, Conservative Surgery. Although living in an age in which mechanical skill has produced such marvels of art for replacing lost members, and the mechanical devices have attained to almost perfection, still, the continued developments and onward strides of

conservative surgery have to a very great extent ceased to supply the necessity for the exercise of man's ingenuity in this particular direction.

The subject has been so well studied and so thoroughly written up as almost to preclude the possibility of adducing any new facts, were it not that the study of conservative surgery is entirely based on the results of experience; therefore the records of cases become of value in proportion to the amount of injury sustained, and the resulting value of parts saved.

Case.—Frank Farmer, miller, aged 25 years, engaged in two-story flouring-mill, corner Washington and Drumm street, city. On September 4, 1871, the ordinary hoisting apparatus being out of repair, he endeavored to raise twenty-three hundred weight of oats in the slings to second story by triple tackle, passing the rope a distance of 30 feet on second floor to a 2½ inch revolving shaft, intending to take two or three free turns round the shaft, and in this manner to raise the weight. While paying the rope the thumb of his left hand caught between the rope and the shaft, and to it in an instant his hand and forearm were rapidly bound. The arm being twisted as far as it conveniently could without tearing loose from the body, he was raised from the ground and began to revolve with the shaft at the rate of 420 revolutions a minute. When the weight reached the trap, it was too large to pass through; the rope broke and coiled round his body, saving him from being dashed against the rafters. He revolved for about half a minute, when the strain bent the 2½ inch shaft and threw off the driving belt. The engineer, discovering something wrong, stopped the engine. He was cut down and a surgeon sent for. Dr. C. M. Bates came and placed the bones in as normal position as was possible, and retained them by such impromptu splints and bandages as could be obtained on the premises. He was then removed to his home, and I, being his regular medical attendant, was sent for and saw him at 5½ P. M.

I removed the bandages and splints, and there being considerable hemorrhage, reopened the wound on the ulnar

side of the forearm, which was V shaped, extending from about four inches of the point of the elbow through the wrist into the palm of the hand; the other wound being toward the radial side, and meeting this one at the wrist. I found the torn superior end of the ulnar artery and applied a ligature. The ulnar bone was exposed from its styloid process upward for six inches, and not connected with muscle or membrane. The olecranon was fractured through the great sigmoid cavity. The radius was fractured in three distinct places; first, at the junction of the upper with the middle third, the lower fragment overriding the superior and passing through the skin. Second, about an inch above the radiocarpal articulation an oblique fracture from side to side; midway between was a straight fracture. The metacarpal bones of the index and little fingers were also fractured. With such a condition of affairs it seemed that amputation was indicated. The patient, however, declared he would rather die than lose his arm, and desired me to make an effort to save it. To this I consented. The fractured bones were placed in position. It was found impossible to retain the arm in the usual manner, with ulnar down or midway between pronation and supination, for the twofold reason that the large wound on that side would require frequent attention, and the great loss of tissue allowed the ulnar to drop from its proper relations, while the inflammation that would most undoubtedly occur would prevent the use of bandages and splints. I therefore placed the forearm in a prone position, extended on the arm on a board with projecting rims well padded with cotton and covered with oil silk, using no confining bandage, thereby securing the privilege of examining the condition without disturbing the limb or incommoding the patient. Ordered ¼ gr. of sulphate morphia every twenty minutes until pain was relieved, and cold water dressing to the arm renewed as occasion required. Next morning, the patient having high fever, ordered mixture of nitrate potass., veratrum viridi and aconite, also a saline cathartic. The heat of the arm was so great that it required to be covered with pounded ice; when the great heat was subdued recourse

was had to continuous cold irrigation; after the third day the morphia was administered only at night to secure sleep. The cold irrigation was continued until September 21, when the wounds received a poultice to separate the sloughs, which consisted of lacerated muscle and tendons; after which separation the carbolic acid and glycerine dressing was used externally and injected into the vacuities left by loss of muscle. Under this treatment the wound began to cicatrize rapidly. October 1st. The arm placed in gutta percha splints, cut to suit the wounds, bandages applied, and the patient allowed to leave his room. October 16th, six weeks after reception of injury, the wounds all healed with exception of over the lower two inches of ulnar and small piece of lower part of upper third of radius, both bones in these places being denuded of periostium. Neither portions were, however, detachable without undue violence. November 1st. The fractures have all been repaired, the olecranon uniting with the shaft at a slight angle, limiting but to small degree the motion of the elbow joint. The patient was now instructed to exercise the limb in its proper movements. The patient desiring to visit his parents at their home in the country, and I believing that the change would be of service to him, gave permission, and requested that should the diseased bones become loose, to call on some surgeon in his vicinity and have them removed. On the thirtieth of November he departed. On the twentieth of December he returned and had with him the before-mentioned lower two inches of ulnar and spicula of the radius. He informed me that they were so free of attachment, that while exercising his arm the ulnar fragment shot out of its own accord, and he removed the piece of radius himself. The wounds now healed in a few days, and the patient returned to the country, and I did not see him for five months, when he called to show that he could use his hand and arm extremely well, and informed me that for the two months preceding this visit he had worked in a saw mill. On examination, I found that flexion and extension of the hand and forearm were well performed, while pronation and supination were almost perfect. The lesson inculcated by

this case is that every conscientious endeavor should be made to save a member of so much importance to such a very numerous class, as results scarce dreamed of may sometimes be obtained.

ART. III.—*On the Artificial Dilatation of the Anus and Rectum for Exploration and for Operation.* By Professor GUSTAV SIMON. Translated from the German by L. S. EBRIGHT, M. D., of Akron, Ohio (now of Heidelburg, Germany).

The examination of the pelvic and abdominal organs with either the half or whole hand in the rectum, which method I have taught, has proved itself in such an elegant manner, that can not forbear writing a second article in addition to the one I read before "*der Congress der Gesellschoft Deutsher Chirurgie,*" which is published in *Archiv. fur Klinische Chirurgie,* B. xv. Since I held that discussion, I have proved the method* of examination further, on a greater number of patients and in different directions, and have endeavored, by anatomical study and experiments on the cadaver, to control the anatomical observations I have made upon the living.

Before going further, I have a few remarks to add to my former article, on the manner of introducing the hand, and the condition of the anus and rectum during the forcible entrance.

The position in which I place the patient is upon the back, and is indeed the lithotomy position, or what might be called the half-lithotomy position. The latter is preferable, because the anus and rectum are more approachable when the thighs are flexed upon the abdomen. The side position also may be used, with the thighs flexed upon the abdomen; yet in this position the simultaneous palpation is not so easily performed as in the former. For a high introduction of the hand into the abdominal cavity, it recommends itself, not only to flex the thighs upon the abdomen,

* For fixing positively the different points which are of importance in the examination, I have frequently used patients who were under the influence of chloroform when it was not really necessary to make the examination. I made these examinations because I was convinced that they were perfectly harmless.

but also to bend the body forward toward the abdomen, so that its cavity—the abdomen—may be shortened. The palpation is best performed bimanually; for by fixing the examined part with the free hand, which is pressed upon the external abdominal wall, the examination may be made with accuracy and certainty. The chloroform narcosis must be very deep, for then only can the spincter muscles be overcome. Before introducing the hand, the rectum must be cleansed of all fecal matter by warm water injections, unless the patient's bowels have been previously moved.

After this preparation, the hand may be pressed into the rectum; first two fingers, and then four are introduced, and finally the thumb. The dilatation must be very gradual, as also the passage of the hand from the anus to the rectum, and must be accomplished by a rotary motion. The force which it is necessary to use to expand the integumentary edge of the anus and overcome the sphincter muscles is pretty considerable; there can, therefore, by careless introduction, be a rupturing, not only of this integumentary seam or edge, but also of the spincter muscles. This accident is most easily avoided by a gradual entrance with a rotary motion of the hand, because in this manner the dilatation may be carried to its utmost capacity. Richly oiling the hand lightens the operation. This expansion of the anus is not, as I have already stated in my first article, in the least detrimental to the contractile properties of the same. Indeed, repeated dilatation to its maximum does not destroy its functions. In one case I operated four times through the dilated rectum for recto-vesical fistula, until, after the fourth operation, the fistula was finally healed. After the third operation the urine, which still flowed into the rectum, could be retained for as great a length of time as formerly, although it was expanded to its utmost with the speculum for a number of hours. In many other cases, I have made four and five examinations of the rectum at different times, and in clinical cases have always had one or two of those present repeat the examination and corroborate the results. In my later examinations, as well as the earlier, the feebleness of the organ has not remained longer than twelve hours. By a careful observation of the above given directions, as my experience has repeatedly taught me, by laying the hand together in the shape of a cone, a bloodless examination may be made with a hand measuring twenty-five centimetres in circumference.* The

* I have frequently had physicians and students make the examination whose hands measured twenty-five centimetres and more in circumference.

numerous folds of the sharp integumentary seam are seldom ruptured, and in exceptional cases only is it necessary to make an incision in the posterior raphe of the spincter muscles.* For the introduction of a large hand this precautionary incision should be much more frequently made, but even in such cases the injury is not great, and the pain in the parts does not last longer than a day. The posterior incision is healed in perhaps twelve days, and by applying a suture may be accomplished in less. Incontinence does not follow. The anus forms—in its greatest dilatation even, which is twenty-five centms. in circumference, and may be more—but a narrow entrance to the larger cavity of the rectum. This cavity is formed by the inferior and middle portions of the rectum, the first of which lies outside of the peritoneum, and the second is covered only on the anterior portion by the posterior wall of "Douglasi Fossa," and extends to the superior third of the rectum, *i. e.*, to the point above, where the peritoneum incloses the anterior and lateral walls of the bowel, and where it is attached to the os sacrum.† This point lies from twelve to fourteen centms. above the anus, and corresponds to the third sacral vertebra. The greatest width of the rectal cavity is at a point about six to seven centms. above the anus, and its expanding capacity from twenty-five to thirty centms. From this point to the superior extremity of the middle third, it gradually diminishes to twenty to twenty-five centms.,‡ and from here it gradually lessens, until, in the middle of the upper third, it is not more than sixteen to eighteen centms. in circumference, the narrowest portion being in the sigmoid flexure.

The larger and most important portion of the rectum fills the true pelvis in the greater portion of its breadth, while the upper and narrower part covers only the middle of the sacrum. If the first portion is very much expanded, either through the introduction of the hand or injection of water, it not infrequently happens that a blind sac is formed,

* An incision heals more rapidly than a rupture; therefore, when an unavoidable rupture is foreseen, a prophylactic incision should be made through the integumentary seam or sphincter muscle.

† With the greatest number of anatomists, I recognize three rectal portions.

‡ The measures given, as above remarked, are the circumference of the bowel in its greatest possible expanded condition. For taking the dimensions, the bowel is taken from the cadaver, slit open, and the ends fastened, when it expanded laterally. In this manner it was stretched to its greatest capacity, and the measure of the width taken as the circumference. Filling the bowel with plaster of Paris is not applicable for taking these measures, for it can not be expanded to its greatest extent. By forced injections of fluids (oil and wax), it may be dilated to its maximum, although it is difficult to get the dimensions, because the bowel ruptures so easily. The dimensions differ according to the individual.

which is abruptly terminated by a fold of the superior and narrow portion of the bowels.* Even injected water some times can not be forced from the inferior and wide portion to the superior and narrower. This opening between the two parts, rendered slit-like by the fold in the bowel, lies in the sacral excavation, at a distance of seven to eight centims. from the promontory of the sacrum, and is sometimes difficult to find. If found, the superior portion of the rectum and the first part of the sigmoid flexure may be explored, not indeed with the whole hand, but almost invariably with four fingers as far as the thumb. The caliber of the bowel at this point is too small for the entire hand, and were its introduction forced, rupture would most certainly follow; for the smallest male hand, when brought together, is from two to four centms. larger in its circumference than this portion in its greatest dilatation. In two respective experiments on the cadaver, described in my first article, the walls of the bowel were ruptured longitudinally as I forced my hand—which measures twenty-one centms.† in its largest circumference—through this part. Indeed, it often happens that not only the superior, but also the middle third, is too narrow for the introduction of the entire hand—that is, the upper part of the larger cavity in the rectum—so that but four fingers may be passed into this, while the largest portion of the hand remains in the inferior third. Here the height, to which the hand may be introduced into the abdominal cavity, depends upon the mobility of the bowel, which is not unfrequently very considerable, and admits of a displacement of four or five centms. But not only the variable width in the caliber of the bowel, but also the attachments of the peritoneum to the concerned pelvis viscera fixes the limit to which the hand may be pressed forward.‡ The peritoneum, which covers the upper portion of the viscera of the true pelvis, forms two lateral folds, which pass off from the lateral walls of the rectum on a level with the third lumbar vertebra; and run, in the female, on the posterior wall of the cervix uteri, and, in the male, on the center of the base of the bladder, from here uniting themselves in a semi-circular-like fold projecting convexly forward. The lateral folds are described in the female as

* These folds are formed of the wall of the bowel itself. The one lying in the vicinity of the fold of the mucous membrane—the so-called sphincter tertius—has nothing to do with it.

†In my former article I gave twenty centms.; exact measuring gives twenty-one.

‡I have studied these relations, partly on anatomical preparations which Herr Geheim Hofraht Arnold kindly furnished me, and partly on the cadaver.

ligamenta recto-uterina, and in the male as recto-visicalia, while the band of union is not named. These bands (the lateral with the uniting band) form a semi-circle, and might, for conciseness, be called the ligamentum semi-circularis Douglasii—that is, the two halves together. They border the entrance of Douglasii fossa—which I, with the greater number of anatomists, understand to be only a pouch of peritoneum, which forms the deepest part of either the recto-uterine or recto-vesical excavation. This sac is from four to five centms. below the semi-lunar ligament of Douglas, lying between the anterior wall of the rectum and posterior wall of the uterus, or the base of the bladder. The deepest portion of the same is, in the female, six or eight centms.; in the male, seven to nine centms.; and the ligament, twelve to fourteen centms. from the anus.

In passing the hand forward into the rectum, the relation of the parts is found to be as follows:* If, with the hand lying in the large cavity, four fingers are shoved to a greater height, the broad portion of the hand will succeed in reaching, in large rectal cavities, to the height of the ligamentum Douglasii. The ball of the hand cannot be brought further into the bowel, even if it be capable of great expansion, for here the above-named ligament contracts the passage, and permits the entrance of but four fingers. Were the whole hand thrust to a greater height, not only would the peritoneum be torn loose (to which fact Geheim Hofraht Arnold directed my attention), but also the vessels of the bladder and rectum would be ruptured (the A. a. Umbilicales Obliteratæ, Vesicales, Hæmorrhoidales mediæ and Uterinæ). On account of this double danger, to which must be added the above-mentioned rectal rupture, forced advancing of the hand into the higher portions of the bowel must be most carefully avoided. In these cases—which must be considered favorable for the examination, since the bowel offers no obstacle to entrance as far as the semi-lunar ligament of Douglas—the base of the thumb is thrust to this point, twelve to fourteen centms. above the anus, and half of the hand can advance through the upper part of the rectum into the beginning of the sigmoid flexure. Therewith the abdomen may be palpated several centms. above the umbilicus, and by reason of the great mobility of the bowel at this point, the abdominal coverings in front may be reached. Indeed, not only the left, but the right side, may be palpated at this height. In other cases, where the

* I learned these relations on the cadaver, by taking the small bowels—ileum and jejunum—out of the pelvis, and shoving my hand upward through the rectum.

upper portion of the large rectal cavity—*i. e.*, the middle third, which is covered on the anterior surface of the posterior wall of Douglasii fossa—is, either in its whole extent, or partly, too narrow for the entrance of the whole hand, by the introduction of four fingers, this portion, together with the hand, may be carried upward, and passed through the space surrounded by the ligament.

Douglas' fossa is thereby inverted, and this inversion may be carried to such an extent that the semi-lunar ligament, which before formed the highest part of the fossa, now forms the deepest. The dislocation of the bowel, which might be carried still further after the inversion of Douglas' fossa, is here limited by the unyielding ligament. In case the mobility of the bowel be less, whereby the inversion of the fossa may be rendered incomplete, the further advance is arrested, although the ligament does not act as a barrier. These conditions, which are not infrequently found, are far less favorable for the palpation than those previously described; for, if the bowel is capable only of a partial inversion, the hand cannot reach so high above the ligament; if the dislocation is carried to complete inversion, the upper portion of the bowel is rendered so tense that its mobility is diminished and the lateral palpation much impaired. Here it is often impossible to reach as high as the umbilicus with the finger, but only to the abdominal walls between the umbilicus and symphisis; or, if the umbilicus is reached, it is impossible to palpate the inferior portion of the left side of the abdomen. We reach to the least height in the abdominal cavity when the superior narrow portion of the rectum—which is covered on the anterior and lateral walls with peritoneum—is comparatively narrow and rendered immovable by abnormal adhesions. It is better in such cases to avoid palpation with the fingers in this portion, and to palpate only through the blind sac-like expanding part of the bowel, the walls of which may be lifted so far above the semi-lunar ligament that the points of the fingers are but 2-3 centms. from the edge of the symphisis, and may be felt with those of the free hand through the abdominal walls. A sufficient height may be reached through this sac to feel very minutely the uterus and ovaries. Finally, in cases in which, on account of too great a narrowness of the inferior strait of the pelvis, the hand cannot be at all introduced into the large cavity of the rectum, or where a high introduction into the abdominal cavity is unnecessary, palpation may be performed with the half-hand, and likewise through the anterior wall of the rectal blind sac.

The progress which has been made through this new method of examination results in this—that the fingers, in favorable cases where the hand is entirely introduced, are able to reach at least 15 centms. higher in the abdominal cavity than in the old manner of examination; in less favorable cases, from 10 to 12 centms.; and by the half-hand, from 5 to 6; further, that they are separated from the parts to be examined, only by the thin wall of the bowel. The examination has this additional advantage—that the sureness of its results are not detracted from by the thick and unyielding abdominal walls, which rendered the old (the palpation through the abdominal walls) and the ordinary bimanual palpation, very uncertain, or, in many cases, completely resultless.

The indications for the examination I have given in general in my former article. It may be practiced in all important cases of disease, in which, by the older methods, the necessary information cannot be obtained. As a matter of course, the patient must be previously informed that an examination through the rectum is necessary, and that he may have pain in the parts for a few days. If an operation be in view, the examination may be made immediately before the same.

In considering the more particular conditions in which the manual rectal examination will probably have peculiar advantages over the earlier methods, we will find them before all-striking in diseases of intraperitoneal-lying organs, in reference to their position, form and consistency. The diseases of the rectum can be recognized as high as the beginning of the sigmoid flexure, and the diagnosis of the disease of the intra-peritoneal portions of the female genital organs (uterus, ovaries, and uterine ligaments) and the bladder, particularly in males, abscesses and tumors in the pelvic cellular tissues, etc., may in every case be rendered certain, where it is possible for the method to be used. I might mention a large list of cases of disease of these parts, in which it was impossible to make a correct diagnosis by the older methods of examination, while after the new it was quite satisfactory. But this method has not only marked advantages for the diagnosis of diseases of the pelvic organs and tumors which lie in the lower half of the abdominal cavity, for, from the fact that the pelvic organs may be grasped in their whole expanse, from hence evidence may be gained for the diagnosis of those tumors which lie in the abdomen, but do not stand in connection with the pelvic viscera; furthermore, one can, through direct palpation, examine enlargements and tumor forma-

tions which have their seat in the lower half of the abdomen, or which project from higher-lying viscera into this part. Cases belonging in this catagory, in which abdominal tumors have been diagnosed most exactly in all details of shape and position, I reported in my former article, and this list has been greatly increased.

For obstetrics our method of examination might be specially applicable, inasmuch as pelvic contractions—total as well as unilateral—in general all form changes of the pelvic bones, can be much easier and more confidently determined than formerly; particularly may the posterior portions of the bony pelvis—the sacrum and the lower lumbar vertebra, which are subject to the most frequent and important changes in form—be palpated with the greatest exactness; finally, the introduction of the hand might be of advantage for the surgical therapeutics of the pelvis and abdominal viscera. The technecalities of many operations might be thereby advanced, and perhaps entirely new operative procedures be rendered possible. In my earlier article I drew attention to the fact that in chloroform narcosis foreign bodies might be extracted from the rectum, and that perhaps incarcerated herniæ, particularly umbilical, can through pulling from within be freed from their incarceration. I have also mentioned a case in which I dislodged a fibroma of the uterus from its attachments which could not be moved with single fingers, and shoved it into the cavity of the abdomen, upon which I could press the myom, which sat upon the fundus of the uterus with a small pedicle, so against the inner wall of the abdominal coverings that it projected strongly. The extirpation of the same, had the indications for it been present, would have been far easier and less dangerous than the ordinary extirpation, because, after making the incision through the abdominal wall, the tumor could have been pressed out of the cavity from behind.

These commnnications may succeed in introducing into our practice a more methodical examination of the pelvic and abdominal viscera through the rectum. In regard to their worth, scarce a doubt can exist; and that by observing the rules of caution given, not the slightest harm can follow to the patient, I believe I have conclusively proved.

There came recently to Heidelberg, on my invitation, a large number of professors and physicians, in order to learn this method of examination. There were five female patients; two with vaginal fistulæ (among them, one with contracted pelvis), one with fibroma of the uterus; one with ovarian tumor, and one with carcinoma of the uterus. The

examination was repeated on each patient at least three times; on three of the same, five times, and also by colleagues whose hands measured 25–26 centms. By observing the rules of caution, *i. e.*, with very gradual introduction of the well oiled hand, the edge of the anus was ruptured very superficially in one instance only. After the examination, the patients suffered no inconvenience except nausea from chloroform, and, particularly, not the least pain in the abdomen. The tonicity of the bowel was so completely restored on the following day that injected water was retained.—*Cincinnati Lancet and Observer.*

Institutes and Practice of Medicine.

ART. IV.—*Lente on the Antagonistic Effects of Atropia and Morphia.*

Dr. F. D. Lente relates (*New York Medical Record*, January 1, 1873) the case of Mrs. O——, aged forty-eight, whose health was much broken by tertain ague of three months' standing, and who was treated by Dr. Lente with hypodermic injections of quinia. On one occasion, by mistake, instead of a solution of quinia, he injected fifty-five drops of a solution of morphia and atropia, containing very nearly two grains of morphia and one eleventh of a grain of atropia. In a few minutes she felt faint and giddy, and asked for water. She soon complained of feeling as if she had taken too much wine. Half an hour afterward the patient walked with but little assistance out of the office, got into a light wagon, was driven one third of a mile to the house of a friend, talking all the way quite rationally and composedly, and finally got out of the vehicle with but little assistance and walked into the house; at this time she complained of nausea, and said she must vomit, but she did not, and the nausea did not recur. The pupils were almost natural—a little dilated perhaps; pulse good; respiration rather slow. Two hours after she was lying quietly in bed, with her eyes closed, but not particularly sleepy; pulse 120, full and regular. Half an ounce of whisky was given every half hour. The pupils were more dilated, and acted rather feebly. Three hours and forty minutes after the accident, she had lapsed into almost complete coma. With the greatest difficulty she could be made to swallow. She had had an ounce and a half of stimulant. The respi-

ration was 4½ per minute, irregular; pulse 106, full and regular; the pupils were very slightly dilated and immovable; the mouth was dry, and she had complained of this previously to passing into insensibility. Dr. Lente ordered cool applications to the head, and beef tea and whisky, an ounce of each *per rectum* every half hour. Five hours and forty minutes afterward the pulse was 99, full and regular; respiration 5½ per minute, irregular; she could be roused with some difficulty; the pupils remained the same. Six hours and forty minutes afterward she was easily roused, and said she felt pretty well, in a very drowsy way. Pulse 90; respiration 8, fuller and more regular; she could swallow without difficulty. The stimulants were ordered to be given less frequently. Nine hours and thirty-five minutes after the injection she felt very well, except that her head was heavy and her mouth dry; respiration 9½ per minute; the pupils responded very feebly to strong light. She had no relapse.

Dr. Lente cautions against relying too much on experiment with animals, as poisons affect them differently from man. Thus, dogs will take enormous doses of morphia or arsenic without injury; and it is scarcely possible to poison a rabbit with atropia; while arsenic will speedily kill a rabbit, and atropia a dog. He refers to another case, where he administered three hypodermic injections of a solution of morphia and atropia at short intervals, employing in all rather more than a grain of morphia and one sixteenth of a grain of atropia. In this case the phenomena, though very similar in some respects to those presented by the first-mentioned case, were very different in others. Thus, up to several minutes after the third injection, no marked relief of the pain was noticed, when suddenly the patient lapsed into almost complete coma, which became absolute within half an hour; the pulse was rapid after a time, but not alarmingly weak. The patient was treated with nutritive and stimulating anal injections. As in the case of Mrs. O——, the comatose symptoms disappeared rather suddenly in about six hours. In both cases the pupilswere almost normal in size, but quite immovable by the stimulus of light.

Numerous observations lead Dr. Lente to conclude that, for ordinary hypodermic injections, we may safely use two thirds of a grain or morphia, and one thirteenth of a grain of atropia, without producing the toxic effects of either drug, and generally without nausea, often excited by morphia alone. He refers to a case reported by Dr. Baker, of Morristown, where the hypodermic injection of morphia was "promptly" successful in the case of a child poisoned with stramonium. BY SIDNEY RINGER, M. D., *in London Medical Record.*

ART. V.—*Croup and Diphtheria.*

Dr. Schultz (in the *Weiner Med. Wochenscrift*) recommends the inhalation of bromine in a solution of brom. potass. as a prompt, safe and speedily beneficial means of treating these formidable diseases. His formula is bromide and bromide potassium, each three tenths of one gramme (4½ grains) to water 150 grammes (about ℥ iv ss.) A sponge is soaked in the solution and placed in a funnel of stiff paper, and held over the nose and mouth for inhalation (just as is done in the inhalation of chloroform), the inhalation being continued for five or ten minutes, and repeated every half hour or hour. This preparation is decomposed by light, and should be kept in glass stopped vials, away from the light. To use it with the atomizer would no doubt be preferable, as by this means the minute particles would follow the air in every direction into the air tubes and over the epiglottis, trachea, etc. The bromide of ammonia, used in this way, was long ago recommended by Dr. Youart, of Indianapolis.

In the *Medical Times* is an extract from the *Gazette Hebdomadaire*, of a paper by Dr. Daquillon, who recommends, when symptons of impending suffocation arise in membraneous croup, that a sponge be well attached to a whalebone in the form of a probang. The sponge is to be dipped into pure liquor ammonia and thoroughly squeezed, and then passed down the child's throat, which is made to inhale the vapor of ammonia as long as it possibly can. An abundant secretion is soon established from the respiratory mucous membrane, and an immediate detachment and expectoration of the false membrane, and along with this a marked diminution of the dyspnœa, cough and other alarming symptoms. Dr. Daquillon assures us that this treatment has frequently saved the lives of children whose case, a few moments before, appeared next to hopeless.

Dr. Coates, of Ostego, Michigan, says that he once encountered an epidemic of croup and diphtheria mixed, which was very fatal. He, however, succeeded in curing his cases by using frequently through the day, with the atomizer, the following:

℞—Bromide potass..... ʒ ij.
Comp. sol. of iodine..... ℥ ij.
Water..... ℥ iv.

He says that the false membranes *melt away* under its action, and the bad symptoms subside rapidly. He men-

tioned the case of an infant, a year old, in the last gasps of life, from acute membraneous croup, that was saved in ten minutes by the above. The infant, he believed, would have died in ten or fifteen minutes.—*Medical Archives.*

ART. VI.—*Castanea Vesca in Whooping-Cough.*

Dr. THOMAS D. DAVIS, formerly resident physician in the Philadelphia Hospital, has made, under Dr. J. S. Parry's superintendence, a careful study of the value of chestnut leaves in whooping-cough. He uses Prof. Maisch's fluid extract in doses of f. ʒ ss. to f. ʒ i. every three hours, for a child six years old. He says (*Philadelphia Medical Times*, December 28, 1872), *inter alia:*

On two days before the using of chestnut leaves all medication was stopped. The disease immediately increased, both in the number and severity of the paroxysms. The children were all otherwise healthy, and between four and seven years of age. I have tabulated the cases, so that there can be seen at a glance the number of paroxysms in each case while on the use of belladonna, without it, and for five days after using the other remedy:

Number of cases.	Paroxysms using Belladonna.	Without Medicine.		Using Fluid Extract Castanea Vesca.				
		1st day.	2d day.	1st day.	2d day.	3d day.	4th day.	5th day.
1	16	20	27	19	11	9	5	2
2	14	24	24	20	9	4	4	2
3	13	13	17	12	5	4	1	1
4	12	16	20	10	6	3	2	0
5	12	18	18	7	4	5	2	1
6	12	15	20	9	5	3	1	2
7	11	11	18	6	4	2	1	0
8	10	9	12	7	2	0	1	0
9	9	12	13	5	4	2	1	0
10	7	9	10	2	2	2	0	0
11	7	8	15	4	3	1	0	0
12	5	6	10	3	1	1	0	0
13	5	7	6	2	0	0	0	0
14	3	4	4	3	1	0	0	0
15	2	4	5	4	2	0	0	0

In this table the cases are arranged in the order of their severity while on the use of belladonna. The first eleven

cases all had the characteristic whoop; the remainder had well-marked paroxysms, but not the full spasm, and they recovered without having it. In each case the violence of the spasm was reduced even more markedly than the number of paroxysms. On the days on which the cases are marked as having no paroxysms, they had slight coughs, but no sign of spasm whatever. The castanea was continued for a week, after which, in a few cases, a simple expectorant was given. The nurse in charge, who had witnessed many epidemics of the disease, declared she had never seen a medicine act like it.—*New Remedies.*

ART. VII.—*Intestinal Hæmorrhage in Typhoid Fever*, by CHARLES W. PARSONS, M. D., Providence, R. I.

Read before the Providence Medical Association, Nov. 4th, 1872.

The death of Dr. Lyman L. Swan, a valued member of this Association, gives a particular and melancholy interest to the disease and the special symptom by which he died. At the meeting held in respect for his memory on the 23d of September, it was mentioned that after being somewhat unwell for a few days, he walked about and packed his carpet-bag, on Monday, the 9th of September, made arrangements for an expected illness, and took to his bed that day. Dr. Brown, who attended him with great fidelity, had a few years before seen him through an attack of mumps, which was accompanied by so much prostration and delirium as to be alarming. He knew, also, that Dr. Swan had been working hard in his profession, and had had extra fatigue and anxiety on account of the sickness and death of a brother, from heart-disease, at the country homestead some nine miles distant. Anticipating a serious attack, Dr. Brown called in Dr. Collins, who visited constantly in consultation, beginning on Wednesday, September 11th. Dr. Swan early showed great weakness, especially by the voice, which was husky or whispering. He had not much delirium, less throughout this disease than with the mumps. He was rather constipated at first, took some aperient medicine, and never had any great diarrhœa.

In the night succeeding Thursday, September 19th, ten days after his illness may be considered to have begun, he had his first hæmorrhage from the bowels. This occurred again, very profusely, toward noon of next day. These re-

peated losses of blood rapidly exhausted strength; but his intellect was little impaired; after this excessive hæmorrhage, he executed his will. His voice returned to some extent that evening; but his strength and pulse did not, and he died about 2 A. M., Saturday, September 21st. If we date his typhoid fever from the time when he took to bed, on which same day he had been walking in the street, then he had entered on the twelfth day of his disease. He was nearly 34 years old.

From the interest we all feel in this case, personally and professionally, I have been led to look up the recorded experience of physicians who have seen much of typhoid fever, and seek an answer to some questions that occur in relation to this symptom of *hæmorrhage from the bowels.*

I. The *frequency* of this symptom in typhoid fever varies a good deal in the experience of different observers. Doubtful diagnosis may explain part of this diversity, but not all.

No reports in the English language have thrown more light on the natural history of continued fevers than Dr. (now Sir William) Jenner's. At the London Fever Hospital, in the years 1847–'49, when typhus spread from Ireland to Great Britain and the United States, he collected nearly 2000 accurate reports of cases. After separating cases of relapsing fever, he selects from the others those fatal cases of which the diagnosis had been confirmed by autopsy. There were sixty-six such cases and records of *post-mortem* examinations. Of these, twenty-three presented the intestinal and mesenteric lesion—the anatomical sign of typhoid fever—forty-three did not present it. The two groups were named by him typhoid and typhus, the distinction being based on these *post-mortem* appearances. They presented marked differences in their history, "so different, indeed, as to render their separation a matter of absolute necessity, if accuracy was to be maintained in the description of these diseases, or certainty arrived at in their treatment." The typhoid cases (or those where the lesion referred to did exist) were all under forty years old; nearly one third of the others were over fifty; the average duration of the fatal cases was, in the first group, twenty-two days; in the second, fourteen; the eruption was, according to Jenner, as different in the two sets of cases "as well could be, considering that both were of a reddish hue." Other distinctions show that these fever cases make two groups, generally unlike in important points, though these may run into one another. Now, in fifteen of the typhoid cases where the presence or absence of epistaxis is men-

tioned, it occurred in five (or one third); in twenty-three cases of typhus it occurred in none. And Jenner's report states that hæmorrhage from the bowels occurred in one third of the cases he calls typhoid, in not one of the typhus. Only one of the typhus patients in three years had discharge of blood from the bowels, and that was an old man with hæmorrhoids.

Dr. John B. S. Jackson, for many years the leading morbid anatomist of Boston, reports in this JOURNAL, Aug. 8th, 1872, forty-three fatal cases of typhoid, of which he had some notes of the *post-mortem* appearances. In five of these, hæmorrhage from the bowels was considered the cause of death.

Of 303 cases of typhoid, at the Massachusetts General Hospital, analyzed by Dr. James Jackson, thirty-one presented this symtom. Flint observed it in three out of seventy-three cases that he analyzed. This autumn there have been twelve cases in the Rhode Island Hospital; two had hæmorrhage.

At the Hotel Dieu, in Paris, Louis observed forty-six fatal cases, which are analyzed in his treatise on fever, and of which he considered the diagnosis made out. Of these, only two presented this symptom, and one of these (observation xliv) ranked by him as latent typhoid, was a tubercular case, the record of which, as he gives it, reads very much like acute tuberculosis. He speaks of three cases of this hæmorrhage in typhoid—in each repeated for a few days—and followed by recovery.

Chomel, at the same hospital, observed this hæmorrhage during life in five out of forty-two fatal cases, and concealed hæmorrhage within the small intestines, ascertained after death, in one more.

All these statements must be considered as referring to adults, or those past the age of puberty. In the typhoid of children, hæmorrhage appears to be rare. Rilliet and Barthez, in their great work on Diseases of Children, give no instance of it in 111 cases of the disease. They quote one at the age of fourteen, a fatal case, observed by Mr. Taupin.

We cannot make any general statement from these figures, as to the proportion of cases of typhoid in which hæmorrhage from the bowels occurs. Adding up the whole list of *fatal* cases, observed in London, Paris and this country, we find that this symptom was yresent in about $\frac{1}{8}$ of these fatal cases (or 1 in 7.7). Adding up the cases, fatal or not, observed by Jackson and Flint in this country, and at our hospital in this autumn, we find that it occurred in about

$\frac{1}{11}$ of all, or 1 in 10.77 (cases below the age of fifteen excluded.)

As hæmorrhage may sometimes be overlooked, where the dejections are not constantly examined by the physician, its frequency is liable to be understated rather than exaggerated. Some allowance ought also to be made for cases of concealed hæmorrhage. I have alluded to such a case reported by Chomel. Andral relates the history of a man, aged twenty-eight, who had had diarrhœa three weeks before entering the hospital, lived in hospital eighteen days, growing weaker, but passing no blood. After death it was found that the lower two thirds of the small intestine were filled with dark blood, much clotted; none had passed the ileo-cœcal valve.

II. As to the *fatality* of this accident, or its influence on the mortality of the disease, it is difficult to get an adequate statistical evidence. The interest taken in the morbid anatomy of the typhoid fever has drawn special attention to fatal cases, especially in the clinical reports of the earlier French observers. I had supposed that this symptom was one of very grave import, and have been surprised at the amount of testimony to the opposite effect given by physicians of very large experience.

Of six cases reported by Flint, five recovered, though in one the hæmorrhage was so profuse as to cause syncope and loss of pulse at the wrist for several hours.

Of Dr. Jackson's thirty-one cases at the Massachusetts General Hospital, twenty ended favorably.

He remarks, in his report on cases observed at that hospital, from 1821 to 1835, "In some instances, the hæmorrhage was followed by relief, and in a few by well-marked and permanent relief. But in most, there was great weakness and sense of exhaustion in consequence of it."

Dr. Sutton, of Kentucky, in a paper on this disease, says he remembers ten cases where hæmorrhage occurred, and death followed in only two; and in a note he adds, "Since writing the above, I have seen several other cases, but no death." Dr. Elisha Bartlett says that he had seen as many cases end in recovery as in death. The two recent patients at our hospital both recovered.

Graves, Trousseau and Austin Flint, three physicians of great experience, representing Ireland, France and this country, agree that, though hæmorrhage is sometimes directly fatal, and sometimes helps to induce fatal prostration, still it does not, on the whole, add materially to the fatality of typhoid fever. Trousseau does not give the number of his cases, but quotes three where recovery fol-

lowed copious hæmorrhages, as well as three illustrative cases of death which he had seen within seven years. In one, the bleeding occurred on the twelfth day, a large quantity of dark, fluid, very fetid blood being passed; it was repeated the next day; from that time the symptoms became sensibly less severe; the patient was convalescent in about a month from the beginning of the disease. In another, three large, bloody dejections occurred on the twenty-fourth day; "immediately after, I observed a marked improvement; in the evening, it was noted that the fever was moderate, that there was no abnormal heat, that there was an appearance of greater comfort, and a desire for food." Next day, "the pulse, till then above 120, had come down to 80." Three days later, there was again interstitial hæmorrhage, with epistaxis. Speedy recovery followed. The case reminds one of a remark of Sir Henry Holland, that hæmorrhage sometimes forms a crisis to this disease.

The French physicians who taught in the Paris hospitals more than twenty-five years ago, regarded this symptom as a very grave one. Chomel said, in his lectures: Of seven cases where these hæmorrhages were observed at Hotel Dieu, in six the disease was fatal; one recovered after large loss of blood. But the death is not commonly the immediate effect of this loss; of the six, in only one was death notably hastened by bleeding.

I am afraid that this difference in results was partly owing to treatment. A large part of Chomel's patients were bled very soon after entering the hospital, when they had in most instances been sick already some days. For high fever or delirium, leeches behind the ears were frequently ordered afterward. The published cases do not show that these symptoms were relieved by taking blood. The diet was meagre.

The extent to which this depleting practice was sometimes carried, and the effects it produced, may be illustrated by these remarks of M. Andral, in a debate at the Academy of Medicine: "At one period of my medical life, I, too, used to bleed very largely (in typhoid fever). I made not less than three, four or five abundant bleedings, near to one another, and to some individuals I had not less than two hundred leeches applied, for I was convinced it was necessary to attack congestion wherever I saw signs of it. Do not ask me what were the results of this practice. Habitually, after large bleedings, I saw the nervous symptoms increased, subsultus more marked, delirium more unyielding, and hæmorrhages more frequent. I may say the same

of pneumonia. I have seen patients who, after one or two bleedings, fell into prostration, breathing became more labored and noisy, expectoration was suppressed and death ensued. I may say the same of erysipelas, etc."

There is some reason to think that the fatality of this accident increases with advancing years. In 22 cases of hæmorrhage, where the age was noted, the average age of the 9 who recovered was $24\frac{67}{100}$ years; of the 13 who died, $29\frac{54}{100}$, a difference of nearly five years.

III. Intestinal hæmorrhage may take place at very various *periods* in the course of typhoid fever. The earliest appearance of it that I have seen recorded is in the following, from Andral: "The person had been sick only three days, and for that time had a febrile movement with not very strongly marked symptoms, when, suddenly, after some griping pains, he passed at one time more than a quart of blood. After this, he had a prolonged syncope. The hæmorrhage was not repeated, and the patient went through the usual course of a typhoid fever, which ended favorably."

Todd gives two cases, one occurring on the fifth, and one on the seventh day after the date from which the fever might be considered to have begun. Both patients recovered. Each lost about a pint at one time; and in one, blood continued to pass. Both were very much prostrated afterwards.

Including these, I have represented in the following table the date of first appearance of hæmorrhage in 26 cases, half of which were fatal. Of course, the beginning of the fever often cannot be determined to a day.

Day of fever when hæmorrhage first appeared.	Recovered.	Fatal.	Total.
Third–Eighth (or first week)	3	0	3
Ninth–Fifteenth (or second week)	4	4	8
Sixteenth–Twenty-second (or third week)	3	5	8
Twenty-third–Twenty-ninth (or fourth week)	2	4	6
Thirty-second	1	0	1
	13	13	26
Before end of second week	7	4	11
After beginning of third week	6	9	15

IV. This inquiry as to the period at which this symptom may occur, leads us to ask on what *local conditions* it may depend. The leading features in the morbid anatomy of typhoid are well known. Rokitansky describes them as presenting four stages, which may be briefly indicated as follows: 1. Congestion in the mucous membrane. 2. Swelling of the glands; which he speaks of as typhus infiltration or

deposit, in which period congestion retreats to, and becomes localized in or around the gland-patches. 3. Softening and elimination, when the labor of throwing off the local results of disease produces a new or secondary congestion, the vessels of the mucous membrane becoming filled with dark and viscid blood. 4. Ulceration.

Sometimes the glands slough and are thrown off in mass, involving a variable depth. In the Warren Anatomical Museum is a specimen, showing ulceration of Peyer's patches just above the ileo-cœcal valve, and a small slough hanging from one of them. Blood was found in the intestine below the slough, but none above. This man died about an hour and a half after symptoms of internal hæmorrhage began, having meantime had a profuse discharge of blood.

Here, then, are three conditions of the mucous membrane in this disease, either of them liable to cause bleeding, intense congestion, ulceration, occasionally sloughing. We might suppose that bleeding would be less dangerous, more likely even to be salutary, in the congestion preceding ulceration, and the few facts just given in the table tend to confirm that idea. In some cases—it is impossible to say how many—hæmorrhage is probably a natural relief to the overloaded vessels, analogous to epistaxis.

When the death of Dr. Swan, on the twelfth day of his fever, was related, I thought it was too early for ulceration probably to have begun. But a reference to recorded cases shows the truth to be otherwise. Murchison, of London, says ulceration generally begins about the ninth or tenth day.

The earliest autopsy of typhoid fever I have read of was by Chomel, the patient having died on the seventh day. The man was 22 years old; attacked January 16th; entered hospital January 20th; had had headache, fever, diarrhœa, and was attacked that night with violent delirium; twenty-first, had delirium, full, hard pulse of 110; dry tongue, sordes on teeth, rosamina. Was bled. Next day was in muttering delirium; had ceased to answer questions; tongue and teeth in yet worse state; no diarrhœa; involuntary discharges of urine. Twelve leeches behind each ear were ordered; they bled freely, and that evening he died. Several elliptical patches were found, swollen so as to project into the cavity of the bowel, some near the valve even pediculated or mushroom shaped. The projecting patches were pale, the mucous membrane around them very red, in some places livid. There was no ulceration.

Louis gives three autopsies of death on the eighth day. Two presented slight ulceration near the valve—in one

near the center of the patch nearest the valve, in one occupying solitary glands. The third had some thinning of mucuous membrane over thickened patches, but it was nowhere quite destroyed. In an autopsy of the tenth day, there were some ulcers two or three lines broad. One patient died of perforation the fourteenth day.

Chomel gives nine autopsies of death within the second week. Of these, four presented no ulceration; two of these deaths were on the 8th, one the 11th, one the 12th day. Five did have them; these died, one on the 9th, one the 10th, two the 12th, one the 13th day.

Dr. J. B. S. Jackson says that in one of his autopsies, ulceration had not begun on the 17th day.

On the whole, then, if Dr. Swan died of hæmorrhage with ulceration on the 12th day, there was nothing extraordinary in it.

V. Finally, on the practical questions of *diagnosis* and *treatment*, I have only two remarks to make.

In concealed hæmorrhages, or before blood appears externally, bleeding may sometimes be suspected from sudden weakness, paleness or sinking, not explained by diarrhœa, nor accompanied by the pain of perforation. The temperature is often remarkably lowered; in two cases mentioned by Dr. E. A. Parkes, sinking to 93° at morning. Niemeyer remarks, "Hæmorrhages, if abundant, often betray themselves before the appearance of blood in the dejections, by the collapse of the patient, accompanied by a sudden fall of his temperature, and occasionally by a clearing of the intellect."

The oil of turpentine has served me, as it has many physicians who have written on typhoid fever, better than the ordinary astringents in checking this hæmorrhage. *Boston Medical and Surgical Journal.*

Gynecology and Diseases of Children.

ART. VIII.—*San Francisco Female Hospital Clinic.* Reported for "Western Lancet," by E. D. MARTINEAUT.

Mrs. McG., *aet.* 25; married six years; having had three miscarriages (last one in April, 1871), but never having had

any living children. Was taken sick about two years ago, with frequent inclination to urinate, which act was accompanied with bearing down pains and dysuria. She has been subject to great dysmenorrhœa, for which she has been treated by several physicians, cauterization and dilatation having been resorted to, pessaries of different models used, and narcotics liberally administered (probably with more charity than judgment).

The patient, who is of a nervous temperament, was examined on the nineteenth of May. The uterus was found normal as to size and position, but on introducing the uterine sound a stricture was discovered; this was at once divided by means of Stohlman's modification of Simpson's hysterotome, a pledget of cotton saturated with a solution of persulphate of iron applied to the os, and the patient placed in bed.

May 20. A piece of gum elastic catheter (male No. viii) was introduced into the uterus, reaching up to the fundus and allowed to remain there; ordered capsules of ether. sulph. (gtt. ii), two to be taken three times a day.

May 21. Catheter removed; applied cotton with sol. ferri sulph. to the os; continued ether sulph.

May 23. Catheter again introduced and kal. brom. gr. xv. ordered three times a day.

May 24. Patient comfortable, but restless from loss of narcotics, to which she has been so long accustomed.

I have reported this case, not so much for the operation, which is neither very important nor interesting in itself, but to call attention to the introduction of a foreign body, as a piece of gum catheter, into the uterine cavity during the cicatrization of the wound made by the hysterotome. I have seen Dr. Deane follow this course before with the happiest results, and he informs me that, although he has done so for a number of years, he has never had any accident follow—neither has he ever had a stricture return after the operation. I know that there is a dread among gynecologists that acute metritis may follow such procedure, and Dr. Sims even says (Uterine Surgery, p. 160), that he has a little timidity in following Dr. Emmet's

example of passing an instrument into the cavity of the womb on the third day after the operation, notwithstanding the fact that he admits being obliged to repeat the operation of hysterotomy three or four times in some cases of stricture.

Now it is well known that there is danger of inducing metritis *every time the womb is incised*, and therefore I think it is preferable to take a little more risk once for all by use of the catheter, than to take the chances of repeated operations; and again, every operation leaves another cicatrix, which, from its tendency to contract, will be likely to confirm the difficulty we are trying to overcome.

June 3. Patient examined this morning; os patulous, sound passes easily.

Art. IX.—*Puerperal Fever and Erysipelas.*

Dr. Reamy, in answer to a question from the chair, observed that the epidemic of puerperal fever was subsiding. He had learned of only one case of recent occurrence, and that followed a tedious labor and forceps delivery.

Dr. Richardson had two cases of the disease during the winter, and of these the second is now convalescent. The patient had a very tedious labor from an occipit o-posterior position of the fœtus. The speaker is in the habit of administering quinia to his patients immediately after delivery. In this case, notwithstanding the continued use of quinia, the patient was seized with a violent chill, followed by all the phenomena of the disease. The temperature was greatly elevated; pulse 138; the uterus tender, enlarged, and very hard, since there was only a slight involvement of the peritoneum; and, on account of an idiosyncrasy of the patient, opium was not given; quinia was freely exhibited. Under this treatment the patient did well, but suffered from an alarming relapse. From this also the patient is now perfectly convalescent.

Dr. Muscroft reported a case illustrating the analogy and communicability of the disease in question, and erysipelas. Last fall the speaker was called to treat a case of compound

fracture of a phalangeal bone of the great toe. There had been considerable hemorrhage, yet with appropriate treatment the patient did well. While the wound was healing the patient's wife suffered from an abortion about the fourth month. The female was attended by another, who was, however, discharged at the first examination. The speaker found the patient depressed and anæmic from repeated hemorrhages, and from an offensive vaginal discharge, which probably was owing to the retention of a portion of the placenta. At this time the husband (occupying the same apartment and bed with his wife) was suddenly seized with a violent erysipelatous inflammation of the foot and ankle. The redness extended to the groin; the lymphatics were knotted and painful. The erysipelas took on the phlegmonous form, and numerous abscesses formed in the neighborhood of the ankle. These being opened, large quantities of pus were discharged. Notwithstanding these violent and threatening symptoms, he made an excellent recovery. The doctor thought that this was another case illustrating the relation and analogy between erysipelas and puerperal disease. He also considered it interesting to note that with the transmissibility of the disease from one to another, erysipelas should occur in the male and puerperal fever in the female.

Dr. Richardson thought that there was a general disposition of the profession to recognize an analogy between these two diseases, and that this opinion was not based upon positive proofs. So the case in question does not prove this relation, since phlegmonous erysipelas is not an unfrequent accident in cases of severe injuries where puerperal disease could have had no possible influence. Again, the epidemics of erysipelas and puerperal fever have prevailed independently of each other; while at other periods, as in the present season, they have raged conjointly. In like manner, many authorities desire to establish an analogy between scarlitine and diphtheria; while other equally good authorities are not willing to admit their identity of character. The speaker considers it improper to allow such doctrines to become known to the public, where they can effect no good, and create nothing but dread and confusion.

Dr. Gobrecht stated that during his residence at the Pennsylvania Hospital he had charge of a case of erysipelas in the surgical wards. During the absence of the other residents a patient was suddenly taken with violent labor-pains, which made an examination a matter of necessity. Before the obstetrician of the house could be called, the

woman was delivered. A few days later she was attacked by a series of symptoms, which Prof. Hodge denominated as those of puerperal fever. Therefore the speaker thought that he had directly communicated the disease to the patient. The doctor observed that some pathologists were not fond of making autopsies of subjects dead of inflammation of the serous membranes. Dr. Henry Hartshorne, of Philadelphia, came very near losing his life from purelent infection of a wound made by a needle. A phlegmonous erysipelas attacked the entire fore-arm and arm, and so numerous and large were the abscesses that at one time the life of the patient was despaired of.

Dr. Palmer stated that within the past four weeks there had been both erysipelas and puerperal fever in the obstetrical wards of the Cincinnati Hospital. In the colored ward, where patients were mixed, since the inception of a severe case of erysipelas in a surgical case, three women had been confined, all of whom had convalesced promptly and uninterruptedly so far as the pelvic organs were concerned; but in one case there was a sharp attack in the puerperal state of facial erysipelas—the only case of erysipelas in the parturient woman he had ever seen. In the white ward there have been three cases of puerperal fever, the first occurring in a primiparious woman, a week after normal delivery. Pneumonia (double) showed itself in two days after confinement, which progressed favorably, when the patient began to complain of pain in the abdomen. This became very tender and tympanitic; the tongue red, dry, pointed; the pulse 125 and 130; temperature, 105; lochia scant, offensive; suppression of milk; vomiting, diarrhœa, delirium. Treatment consisted in a disinfectant vaginal injection of carbolic acid and labarraque solution; superficial blistering of abdomen with turpentine stupes, followed by flaxseed poulticing; the internal use of quinia and opium, each grs. j every three hours, until vomiting and diarrhœa came on; then the use of carb. ammonia camphor; no alcoholic stimulants, and free nourishment with milk and beef essence. The patient is now sitting up, and has entirely recovered, so far as the puerperal fever is concerned, there remaining, however, a partial consolidation of lower right lung. The second case, even more severe, was ushered in by a child, followed by fever and intense pelvic pain, thirty-eight hours after delivery, in a primiparia. Tongue red and dry; pulse, 130 to 135; temperature, 105½; abdomen tympanitic; lochia scant and offensive; slight vomiting; diarrhœa; no delirium; treatment essentially the same, except that five drops of tinct. verat.

veride, with gtt. xxxv of bimeconate of morphia, were given every two to three hours until pain was relieved. Temperature was descended to 102, and pulse below 100. Quinie was given in decline of disease. Case is convalescent. The third case, the mildest of these, in a multipara, commenced twenty-four hours after delivery, the disease here not extending to the abdominal peritoneum, but being a puerperal endometritis and pelvic peritonitis. Treatment as above; case still in progress. The speaker stated that every precaution was taken to prevent the spreading of the disease in the wards, and it has yet not existed as extensively as would be expected, considering its prevalence in the city and vicinity. Thorough contraction of the uterus is secured by the use of the hand, ergot, and bandage, after the delivery of the placenta; the ward freely ventilated by windows; the diet full but nutritious; the vagina freely washed out daily with disinfectants in every case, whether the lochia were offensive or not.—*Cincinnati Lancet and Observer.*

ART. X.—*Pruritus Vulvæ.* From Dr. T. G. THOMAS' Clinics.

The first case I show you to-day, gentlemen, is that of Mrs. A——, æt. 40, married, but never been pregnant. During the last summer she says she had a severe itching about the private parts, which annoyed her very much indeed. During the last two months it has increased very much, and for a week past she has felt it worse than ever. This woman has pruritus vulvæ, and she is very much annoyed at the present time—so much so that she has come to us for relief. You may wonder what the special interest of this subject is. In practice you will find that it is one of the most annoying diseases you will meet with, both for the patient and physician. The first thing I must say is, never look upon pruritus vulvæ as a disease, but endeavor to find out what the cause is that produces it. Your course should always be to ask yourself the question, what is the condition which produces the pruritus? In other words, seek the root of the evil. This case beautifully illustrates the position I have taken, as you will see in the progress of the clinic.

Some three or four years ago, a patient appeared in this

clinic who presented but one solitary symptom, and that symptom was pruritus vulvæ. That woman looked haggard, wild, very much emaciated, and had the appearance of a woman suffering from *delirium tremens*. She had been so excessively annoyed by her trouble, suffered from such loss of sleep, that she was obliged to use opium in enormous quantities to allay her sufferings, and this in turn had made a complete wreck of her nervous system. Among the causes which may produce the disease, one was found in her case, which I will mention in connection with this. The woman was suffering from *diabetes mellitus*. The saccharine fluid pouring over the parts was the cause of the irritation. There was the cause of the pruritus vulvæ in her case, and it is not an infrequent cause of the trouble. That case also illustrates the importance of looking most carefully for the cause. In the first place, *pruritus vulvæ* very rarely exists as a nervous disease. In some works upon gynecology you will find it laid down that it is due to an irritation of the extremities of the nerves distributed to the vulvæ. I am not prepared to deny the statement, but I am prepared to make the counter-statement that I have never seen such a case of nervous irritation alone. I feel that I cannot be too particular in impressing upon you the importance of looking as deeply as possible into the subject of etiology in connection with these cases.

You might recommend some ointment or wash, or stereotyped prescription from some work upon diseases of women; but it would be a very superficial manner of dealing with the case. The only true method of management is to first seek the cause. I believe that pruritus vulvæ is usually excited by the presence of ichorous discharge in the lower part of the vagina, and this discharge so excoriates the vulvæ, and sets up such an itching, that the patient may do a great deal of damage to herself in a short time by scratching, In a great majority of cases, I repeat, it is dependent upon an ichorous discharge in the vagina, and hence a leucorrheal discharge may be, and is, a very frequent cause. But it is not the only cause. It is very often found to occur from cervical endometritis, in consequence of the ichorous discharge which comes from the cervical canal, and pours out over the parts. Very often it depenps upon some abnormal growth in the vagina, which creates a discharge that flows directly over the vulvæ, and keeps up the irritation and itching.

The very desire to scratch makes the disease worse, and when the scratching has gone on for a short time, an eruption will be found which will make the case still worse, and still more sensitive to the exciting cause.

The pediculus pubis is another cause, and, upon close examination, perhaps a little pediculus may be found at the root of each hair. Remove one of the parasites, and you will have the whole case in your hand at once; but it would be quite wrong to call it a case of pruritus vulvæ simply. Nor should mercurial ointment be recorded as one of the remedies for pruritas vulvæ, because it cures the disease under such circunstances. It cures when pediculi are the cause, but it would not cure the case we have before us now, nor a case dependent upon an ichorous discharge pouring over the vulvæ.

The main thing I wish to have understood, is that before you constitute a plan of treatment for pruritus vulvæ, you are to look carefully for the cause, or the condition which produces it. Do not look into some work upon gynecology and get some pet prescription, imagining that you are dealing with the case in a rational manner. But carefully study the etiology of every case. Acting upon this principle, I find in this case that the vulvæ is bathed with a thick and ichorous-looking mucous. It is that kind of mucous which comes from the vagina in a low grade of inflammation.

The result of physical examination in this case is the following: A pedunculated polypus, about an inch in diameter is found directly in the mouth of the uterus. This has given rise to an ichorous leucorrhea, which is the general cause of the pruritus; but it is the polypus that keeps up this ichorous discharge by its irritation of the vagina, and this is the source of both the pruritus vulvæ and the ichorous leucorrhea. But, you may ask, why does this ichorous leucorrhea produce pruritus in this woman, and not in others. I will answer the question in this way: that a majority of women have pruritus who have leucorrhea, but they will almost never make this statement to the physician, unless their attention is particularly drawn to it by his questions.

The patient was then placed upon her back, and the polypus removed, by simply twisting it off with the forceps.

This polypus is what is called the glandular polypus, and contains a honey-like material, which consists of the secretion of the Nabothian follicles. One of the little glands or follicles in the cervical canal begins to grow, is filled with a honey-like material, becomes a large cyst, hangs down into the vagina, and becomes a polypus. Without doubt this removal of the polypus will cure the pruritus vulvæ; but if you are particular about removing it rapidly, some wash may be used for the vagina, and some external applications made.

ART. XI.—*Midwifery Notes from British Kaffraria, South Africa.* By DR. C. J. EGAN.

From these we abstract the following: The cases which Dr. E. has seen have occurred among the natives who have been brought somewhat under the influence of civilization. They are all cases of difficult or tedious labor, requiring professional assistance.

About twelve hours is considered to be natural labor in a primipara, and many last for a much longer period. Amongst multiparæ labor is much shorter in some cases, lasting not more than an hour, or even half an hour; but these are very exceptional. They recover from the effects of labor much quicker than Europeans do, some who have required operative interference having been seen standing up and walking about half an hour after delivery.

The obstetric position adopted by the natives is sitting with the heels drawn up to the buttocks, while the shoulders are generally supported against one of the poles which support the roof of the hut, or against some of the female friends, who are generally present in full force. Of course, in this position, no pressure can be made upon the perinæum by the hand of the attendant, but the writer thinks the perinæum is protected by its resting on the firm floor of the hut, and that the too sudden passage of the child's head is thus prevented.

The pelves, it is thought, are not larger than those met with in Europeans, but they are certainly more largely enveloped in their fleshy cover. The head of the child is usually smaller than is met with in Europeans.

There are two different methods of treating the funis. In some cases they do not cut it till the placenta has been expelled. Dr. E. has been called to a case of twins three hours after the birth of the first child—the second lying across and requiring to be turned; and when he arrived the first was lying on the floor, still attached by the funis, in which all circulation had ceased, the child being alive and well.

The second method is to cut the funis across with a rough reed—in fact, to saw it slowly across, making a ragged end to it, as if it was torn—and thus effectually prevent hæmorrhage.

Flooding is a very unusual occurrence, and the writer has never been called in to see or prescribe for a case of the kind.

Among the native infants, one is much struck with the

numerous cases of umbilical hernia. Little Kaffirs, from a year to four or five years of age, are to be met with running about quite naked, with large protrusions at the navel—sometimes the size of a hen's egg. Yet these herniæ seem always to disappear without any remedial measures being adopted. Though often seen in children, it has not been met with in adults.

It originates, probably, from their never using a binder on the infant when first born; and it appears to be removed naturally on the development of the abdominal muscles when the child begins to run about. It shows that the occurrence of such herniæ among European children need not be a cause of so much anxiety as it usually is. It will most likely cure itself if left alone. (*Medical Times and Gazette.*

ART. XII.—*Case of Extra-uterine Pregnancy. Retention of Fœtus Nineteen Years.*

Mrs. E., married at the age of 22, in 1831, became pregnant for the first and only time in 1841, and expected to be confined in July, 1842. During the first seven months of gestation she was sick all the time, and for three months out of the seven was confined to her bed with spasmodic attacks, occurring at what would have been the menstrual periods. At the seventh month she felt very active movements of the fœtus, but after this time she was scarcely conscious of any motion. At the expiration of the ninth month she was taken with labor pains, accompanied by a considerable "show." As the pains increased she took a dose of morphine, after which they ceased and never returned. The discharge from the vagina continued for ten days or a fortnight, during which time the size of the abdomen considerably diminished. After this she recovered her usual health, but was always troubled with lameness, and experienced some difficulty in getting into or out of a carriage, and complained at times of more or less soreness in the right iliac region. Her monthly sickness came on after this threatened labor, and she continued to menstruate regularly for ten or twelve years. The immediate cause of her death, in her sixty-third year—twenty-nine years after her expected confinement—was an attack of erysipelas, complicated with some chronic respiratory affection.

On *post-mortem* examination it was found that the fœtus,

with the placenta and the portion of the membranes that were adherent, weighed four and a half pounds. It was found in the epigastric region to the left of the median line, attached slightly to the left ovary, lying behind the small intestines and bladder, and anterior to the womb. There were quite extensive old peritoneal adhesions, but the fœtus was not inclosed in a sac.—T. C. LAWTON, M. D., *Boston Medical and Surgical Journal.*

ART. XIII.—*Ovariotomy in a Child of Six Years and Eight Months.*

The *Medical Press and Circular* of the twenty-sixth of March says a remarkable case is reported in the continental journals:

The child was born healthy, and in 1870 a tumor was first perceived in the abdomen; in May, 1871, it was as big as a child's head. An incision was made over the abdomen, the tumor was punctured and easily withdrawn; the pedicle was retained, and tied at the inferior angle of the wound. The cyst enclosed, besides a quantity of fluid, an irregular bony mass, somewhat like a superior maxillary bone, with depression resembling the alveoli, also hairs of a yellowish color, as those of the child were, and also a fatty mass. The sutures of the wound were removed on the ninth day, and on the nineteenth day the child had completely recovered.—*Clinic.*

ART. XIV.—*A Case of Shoulder Presentation.* By G. D. MITCHELL, M. D., Darwin, Ill.

July 23d, 1867, I was called to see M., in consultation with Dr. S. Jumper. From him I got the following history of the case: Some 48 hours previous he had been called to visit the case, but the labor pains were so slight that he returned home. He was sent for the next day, and, some ten hours previous to my arrival, she was delivered of a healthy child. Supposing from appearance, that there was another child, he proceeded to make examination per vaginam, but could not reach the presenting part. Labor pains did not return for something like an hour. When the pains returned, an examination revealed the fact that he had a case of shoulder presentation. Dr. Jumper made an at-

tempt to turn the child, but the labor pains were so powerful that he could not succeed in reaching the feet. When I arrived, the pains were still strong, and shoulder well pushed forward down in the pelvis. The shoulder presented with the back of the child towards the pubis, or scapula pubic position of the left shoulder. I made four unsuccessful efforts to secure the feet and bring them down. The tonic contraction was so complete, and the labor pains so violent, and the water so completely evacuated, that it was impossible to secure the feet.

Opiates and relaxants had no effect upon the uterine contractions. It was impossible in this case to perform cephalic reversion, or bring down the head of the child. Could the child be born in this position? As in twins, the child was small, and favorable to expulsion in this position. Some authors say that sometimes spontaneous evolution, or version, may take place. But the vital powers of the patient were fast failing. The pulse was becoming small and feeble. I proposed to Dr. Jumper to remove the child's head—or, as it is called, decapitation—and bring down the body, and afterwards deliver the head. We agreed to send for Dr. D. O. McCord, for further counsel; but before he arrived we thought further delay was dangerous, and would be jeopardizing the life of the patient, and I proceeded to take off the child's head. This I did by passing a blunt hook around the neck of the child, well wrapped with soft muslin, and taking a long-bladed pocket knife, wrapped well with soft cloth to within half an inch of the point of the blade, introducing it upon my finger to the neck of the child, and at the same time, Dr. Jumper drawing upon the hook, to keep the parts within reach. I succeeded in cutting off the child's head, close, of course, to the shoulders, and pushing it back. The labor pains were feeble, and it required some traction on the arm and shoulders of the child to extract it; but it was delivered in a very few minutes.

At this juncture Dr. McCord arrived, and approved our course. We now proceeded to bring the vertex of the head down, and opened it, letting out the brains, and introducing the hook into the aperture, succeeded after some time in delivering the head.

There was much difficulty in delivering the after birth (placenta), from irregular contraction of the womb—similar to hour-glass contraction; and it was some two or three hours before it was accomplished.

The shock to the nervous system was great, and the prostration following lasted several days; but she recovered without any inflammatory symptoms.

I have reported this case for the purpose of making a short report on shoulder presentations in general, and giving my experience in the treatment of these cases; and to urge upon the Society the great importance of being fully prepared and posted to manage shoulder presentations. There are few cases in the practice of medicine in which the reputation of the physician and the safety of the patient are so much at stake as in shoulder presentation. How important it is, then, to have a thorough knowledge of such cases. I will not speak of the different positions, mechanism, diagnosis and prognosis, and the full treatment of shoulder presentations, but give the different modes by which relief is obtained and the mother's life saved.

First. The first is, so authors tell us, the child may be born by duplication, where the child is born with the head doubled upon the body; or, as some have confounded, spontaneous evolution or version, with duplication, in which the body of the child, if forced down, passing the head, and the nates present at the vulva, and the child delivered as in nates presentation. I have never seen a case of this kind, and believe it hazardous to wait for such a result.

Second. The second is by cephalic version, that is, to bring down the head of the child in place of the shoulder, converting it into a vertex presentation. Cephalic version is mentioned by authors, but not recommended. It is said to apply to a very small number of cases. I have had five cases of shoulder presentations, in two of which I succeeded in bringing down the head. If the labor is not strong, the shoulder high up, and the time seized for the operation while the waters are escaping, I think it may be performed in many cases. I think it should always be tried, as it does not interfere with pelvic version, if unsuccessful.

Third. The third, pelvic version, or bringing down the feet. This is the most common mode of procedure, and should be performed immediately if cephalic version has failed. This cannot always be performed. We may be called too late, or the contractions are so strong and the waters so completely evacuated from the first that it is impossible to reach the feet.

I have performed pelvic version in two cases, and failed in the one reported above. If the feet cannot be brought down, all that is left us is the

Fourth method of procedure, the lacerating of the child's trunk, to enable us to extract it doubled upon itself, in imitation of the natural process of duplication; or,

Fifth, by decapitating it, in order that the body and head may be separately extracted, as was performed in the case reported above.

I think decapitating the child is far preferable to eviscerating it. When the contents of the chest and abdomen are removed, the body of the child is still so large that the difficulty is by no means all removed. The head and body still must pass out doubled together. To remove the head, the body and head will pass out separately.

The objection to decapitating the child is the supposed difficulty of removing the head afterwards. It appears to me that it is a much easier operation to remove the child's head than to open the chest and remove the lungs and intestines. In the case reported it was no difficult job to open the child's head, and, when opened, the contents escaped immediately. Neither was there any difficulty in extracting the head, by aid of the hook.

The question I wish to ask the Society is, was this a proper course of procedure, after failing to turn the child by bringing down the feet? Was it good practice to remove the child's head? Immediate help, immediate interference with the natural progress of labor was demanded, beyond all doubt.—*Medical Examiner.*

Ophthalmology and Otology.

ART. XV.—*Retrospective Sketch on Extraction of Cataract.* By Dr. N. J. MARTINACHE, San Francisco.

In the normal state the crystalline lens and its capsule are perfectly transparent, to give passage to the luminous rays. Under the influence, however, of nutritive troubles, this transparency disappears, and the consequent opacity within the crystalline apparatus constitutes a hindrance to vision termed cataract, which is capsular, lenticular, capsulo-lenticular, cortical, nucleolar, etc., according to the seat of the disorder. But I will not enter into a description of those various denominations, for the reason that an article like the present should not aim at giving an exhaustive account of cataract.

Here, in the first place, we must consider a most important distinction (since it must always guide the operator), viz: the amount of consistency of the cataract. This con-

sistency varies, from the fluidity of a liquid to an osseous or even stony hardness (cases of such are on record); and, waiving all further particulars, I may say that, so far as the practitioner is concerned, it is only necessary to discriminate the soft and hard cataract. Indeed, this distinction gives us the key to the operations by extraction.

Were the cataracted substance liquid in all instances, it would be possible to take it out of the eye by a simple puncture, as readily as the aqueous humor; the consistency increasing, the opening must of course increase proportionably, and acquire dimensions in accordance with the state of solidity of the cataract. At this stage the volume of the cataract is the corner stone of the operation, as it is most important that the length of the incision should conform thereto as exactly as possible.

From the foregoing it may be surmised that the extraction is only the exit of the cataract through an artificial opening in the cornea or sclerotica. I mention this merely to give the reader an idea of the fundamental principle of the process, as it will be seen hereafter how it subsequently became modified.

When a small opening is made, measuring externally from two to three lines, it is called linear extraction, but when this opening increases to about half the circumference of the cornea, it is termed the flap operation. This distinction was formerly considered of great importance, but it is now little heeded, since the latter is merely an enlargement of the former.

SIMPLE LINEAR OPERATION.—This operation should be entirely restricted to soft cataracts, such as are met with in young people, up to the age of twenty-five, in general. The following is the *modus operandi:* The pupil being previously dilated, the patient is placed in the recumbent position, chloroformed or not, as the case requires, the eyelids kept apart, and the eye steadied with a forceps.

The operation is divided into three periods:

First period.—Opening of the cornea.—Insert the lanceolar knife perpendicularly to the surface of the cornea, at the middle of its external transverse radius, and, when pierced, incline the instrument backwards, in order to have the blade

parallel to the iris, push it forward into the anterior chamber, in order to obtain an external wound of two or three lines; then carefully withdraw the knife, enlarging the first incision, if requisite.

Second period.—Introduce the cystotome behind the posterior surface of the cornea, the point parallel to the iris; divide the crystalloid in withdrawing the instrument.

Third period.—The cataract is removed by causing the wound to reopen with Daviel's curette, and by exercising, if necessary, slight pressure upon the eyeball.

This period of the operation is most important, and it is of the greatest moment that no crystalline fragments remain in the eye, as they frequently give rise to consecutive inflammation.

SIMPLE FLAP OPERATION, IN CASES OF HARD OR SENILE CATARACT.—The same preliminary precautions as in the preceding. It is also done in three periods.

The first consists in cutting in the cornea a flap, more or less peripherical, according to the size of the nucleus, which is removed after previously dividing the crystalloid, by slight pressure on the eye with a curette. After the extraction of the nucleus, it is indispensable that no cortical substance remain behind; and in order to do this more than in the linear operation, the greatest precaution is to be observed. This step is no less needful to the success of the operation than it is in an accouchement to leave no portion of the placenta remaining. Although it is certainly a point little heeded by many operators—and I have seen some who considered the operation over when they had extracted the nucleus—yet I feel convinced that the secret in successful cases lies far more in this (certainly tedious) part of the operation than in all the so-called recent improvements combined. If, on the one hand, the operation loses of its brilliancy, by the operator remaining for ten or fifteen minutes longer, after the expulsion of the nucleus, lightly pressing upon the eye-ball, on the other hand, he is well rewarded in the excellence of the result.

In the foregoing very brief description of operation for cataract, my only object was to succinctly recapitulate what

was formerly practiced, in order that, setting out from the starting point, the reader might the better appreciate the modifications since introduced into the *modus operandi.*

Linear extraction, practiced by Saint Yves in 1707, was soon afterwards relinquished. One hundred years later (1811) it was taken up again by Gibson, Jäger, Travers, who gave it the name it now bears; but, supplanted by the flap operation, it remained in the shade till 1851, when Von Graefe not only re-introduced it, but caused it to encroach upon the province of the flap operation. For a long time the latter was the only standard one in cases where it was required to withdraw from the eye a hard cataract with central nucleus more or less voluminous.

But for the last ten years numerous and complicated modifications have been introduced into the *modus operandi.* The invention fever seems to have taken hold of all minds. Each inventor is striving to have his improvement brought forward, and the processes follow each other with such startling rapidity that one is at a loss which to choose; the more so as the last new comer is invariably put forward by its parent as superior to its predecessors. For a time Von Graefe's operation, modified in many respects, met with all but universal approbation. It would now appear that reflection and experience are beginning to sober even its most enthusiastic admirers. Indeed, it no longer reigns supreme; the contest is waged between rival operations, which, on account of their greater simplicity and conservative nature, have a better claim to our regard. Nor would it at all surprise us if Von Graefe's process, at one time considered the *ne plus ultra* of extraction, should be soon entirely abandoned. The distinguishing trait of linear extraction is a small opening solely destined to give issue to cataracts of little consistency. The dominating idea in all succeeding modifications was the application of this process to the nucleolar class. Hence, although retaining the name of linear, it became necessary to enlarge the opening, for which reason Von Graefe made his peripherical incision, including one fourth of the external circumference of the cornea. As a natural result of this peripherical position the iris protruded through the wound; it had to be excised,

and iridectomy formed the second period of the operation. In the third place the capsule is divided as freely as possible; and lastly, by means of Daviel's broad, sharp curette, introduced behind the nucleus, the latter is removed.

The section at the periphery of the cornea, iridectomy, and the use of the curette, were all absolutely new in the operation of cataract, and the patronage of Von Græfe was certain to and did ensure for them a favorable reception. Waldow replaced Daviel's curette by another which is flatter and larger. Bowman and Critchett made in the superior portion of the cornea, at the line of union with the sclerotica, an incision of four to four and a half lines; they also used a flat curette, slightly turned up at the end. To this process they gave the name of "scoop extraction." Before describing Von Græfe's celebrated operation of modified linear extraction, I will first briefly sum up the changes introduced into the flap operation. These changes bore principally upon three points, viz: the situation and form of the section, iridectomy previously or simultaneously performed, extraction of the crystalline lens with the capsule by means of a curette.

Formerly the puncture and counter-puncture were made in the cornea at about a millimeter ($\frac{1}{25}$ inch) from its margin. Modern oculists, and Jacobson amongst others, recommend making the section at the junction of the cornea and sclerotica, and this way of proceeding has been generally accepted. One of the strongest reasons in favor of peripherical section is, that the greater vitality of the corneo-sclerotical tissue is much more favorable to the rapid healing up of the flap, whereby the dangers inherent to a slow cicatrization are avoided. Besides, the exit of the crystalline is far easier, for the reason that, as the external opening approaches to the border of the cornea, so does it approximate to the plane of the axis of the crystalline, which then has merely to make a slight tilting movement in order to pass out.

As to iridectomy in cases of hard cataract, it was first proposed by Von Graefe in order to facilitate the exit of the crystalline. His first operations were recorded in

1856. In 1862, M. Mooren extended this proposition to cataracts with abundant cortical substances in cases of senile marasmus, and when the pupil had any difficulty in dilating. These two surgeons performed iridectomy several weeks before the operation for cataract, and in 1863, after the critical remarks of Dr. Wecker, Jacobson established in principle iridectomy as one of the periods of the flap operation. It is as well to mention that he performed iridectomy of the lower portion and after the expulsion of the crystalline lens.

Lastly, in the flap operation, with or without iridectomy, the extraction included the crystalline in its capsule.

As far back as 1773, Richter proposed the extraction of the crystalline in its capsule, and twenty years later, Beer practiced it. More recently, in 1845, this operation was taken up again by Christiaen, and soon afterwards by Moyne of Naples and Sperino of Turin. The views of the latter upon the subject will be best shown by the following extract from his writings: "The extraction of cataract without laceration of the capsule, which I have practised successfully for a long time, differs only from the usual process in the second period being left out. The crystalline is extracted by moderate pressure on the eye-ball with the fingers and Daviel's curette; prolapsus of the vitreous body is of very rare occurrence.

Pagenstecher performed the flap operation with iridectomy, and withdrew the crystalline in its capsule by means of a curette. Whilst I was Dr. Weeker's *chef de clinique*, I saw this operation performed many times, and its most striking features were the clearness of the pupil after the removal of the crystalline, the facility of the cure, and the acuteness of the sight. To use Dr. Wecker's own words, "this process gives marvellous results with respect to sharpness of vision;" but the operator, let him be ever so experienced, is never sure to perform it without tearing the capsule, and besides, in some few cases the lesion of the vitreous body seriously endangers the eye.

Sperinos' process is far simpler and more conservative than Pagenstecher's, but it was not generally adopted.

Besides, as I mentioned above, Von Graefe's process (combined linear extraction) caused, at least temporarily, nearly all others to be lost sight of.

Von Graefe's combined linear extraction originated in the modifications introduced simultaneously into the linear extraction by Bowman and Critchett, and into the "flap operation" by Jacobson. It was in order to unite in one the recent improvements, and to avoid the disadvantages of a big pupil in the lower portion, that he invented his process.

The section was made with a narrow knife, then entirely novel, at about a millimetre, and sometimes a millimeter and a half, in the sclerotica and superior portion of the cornea. This section measured from eight to ten millimeters (from $\frac{1}{4}$ to $\frac{1}{3}$ inches). After the puncture, the knife is thurst obliquely into the anterior chamber and then brought back horizontally towards the point of counter puncture. The blood flows pretty freely after the section. Before proceeding to iridectomize, it is necessary to gently cleanse the wound with a fine sponge. The section of the iris is made the whole length of the incision, care being taken to cut out as far as the angles; the crystalloid is then opened along the margin of the pupil, and pressure exercised with an india-rubber curette upon the lower portion of the cornea to expel the crystalline.

At first it was customary to extract the crystalline with Von Graefe's hook, but this practice has been forsaken.

Arlt and Critchett modified the operation by making the section less peripherical, which is easily accomplished by more or less inclining the narrow knife.

Liebreich made the section below, and sometimes made two iridectomies, one above, a fortnight previous to the operation, according to Mooren's method, and another below when operating for cataract.

Von Graefe's operation, however, modified or not, was welcomed on all sides. Never, perhaps, in the annals of surgery was an operation so rapidly adopted by the majority of the profession, and those who practiced it proclaimed it superior to all its competitors.

Any one at that time not adhering to the new method was

at once set down as behind the age, or among the professed enemies of progress. Foremost of the non-conformists, I must mention Dr. Sichel, my first preceptor. He never would perform the new operation; and even told Von Graefe himself that his operation would not last, because it was too destructive to the eye. Dr. Sichel's clinic afforded some very remarkable comparisons. Sichel, Sr., represented the old school, and in his practice could be seen the results of the simple flap operation; whereas, his son's, who was an enthusiast of the new order of things, afforded those of the combined linear extraction, which, of course, he failed not to extol. But Sichel, Sr., used to say, with all the authority of his talent and great experience: "How is it possible so to sacrifice Nature's best work! Iridectomy is terribly abused. As for me, instead of considering it an improvement, I feel convinced that it is just the reverse; nor can this fail to be soon found out." The hearers listened attentively, but laughed in their sleeves at these, then supposed, antiquated ideas.

In 1868, Van Hasner published a memoir, "Die neueste Phase der Staar Operation," attacking overtly Von Graefe's new process, which, he insisted, was a step backwards, and quite unworthy of comparison with the old flap operation. Von Graefe replied courteously, and these severe criticisms were soon lost sight of.

In the fullness of time, however, experience taught its lesson. After Von Graefe's operation had been practised upon a sufficiently large scale, unforseen, and special complications were observed to occur, to obviate which something had to be again devised.

In the subsequent modifications, the narrow knife was retained; which instrument is one of the finest acquisitions to ocular surgery, as the operator can guide it at will, which is not the case with the broad knife.

About 1869, Liebreich gradually gave up the peripherical incision, on account of its manifold disadvantages, and made it in the cornean tissue. The puncture and counter puncture he still made at one or two millimeters from the edge of the cornea, holding the knife at an angle of 45°, between

the horizontal and vertical position. As a natural result of this centripetal section, the iris protruded less, and consequently the piece to be resected was so small as to do away with iridectomy as one of the periods. "Avoiding iridectomy," says the author, "I could do without elevators, and thus change the whole operation into one less violent and painful." An assistant is not necessary; and, according to the author, this method is the simplest of all—the easiest to perform; in a word, he finds it superior to any other method.

Finally, at the last London Ophthalmological Congress, Dr. Warlomont presented the process of Dr. Lebrun, of Brabant. This process, known as small median flap extraction, is performed by cutting entirely within the cornea. The puncture and counter puncture are made at two millimeters below the horizontal diameter, the flat of the knife being inclined 30°, and slightly turned out so as to describe a curve, and the section is terminated at the union with the superior and middle thirds.

It is hardly needful to add, that with such a central cornean section, iridectomy is unnecessary.

This impulse once given, iridectomy is sure to be abandoned as one of the periods of extraction, in whatever manner it is performed. That a section of a part of the iris is necessary in certain operations for cataract, has never been denied; its opponents only raised their voices against it when it was proposed to make it the rule. Dr. Sichel and Von Hasner warned us of this abuse at the very outset. The latter will witness with a legitimate satisfaction the return to doctrines of which he was the able defender. For, if we place in juxtaposition the flap and the two new operations, it will be quite evident that we have gone back to the cornean section without iridectomy.

Verily, it may be said, "*Multa renascentur quæ jam cecidere.*" Herein we see once more the necessity of being on our guard against innovations, and how wary we must be about adopting, in matters scientific, new ideas, if desirous of not encumbering the road of progress.

As a foreigner, the author requests the indulgence of the reader, because of his imperfect acquaintance with the language.

ART. XVI.—*Improvement in Cataract Operations.* By HENRY W. WILLIAMS, A. M., M. D., Harvard.,

President of the American Ophthalmological Society, First Vice President of the International Ophthalmological Congress at London, Professor of Ophthalmic Surgery in Harvard University.

In the great variety of treatment of eye disease which came under my observation in England and on the Continent at and after the recent Ophthalmological Congress, nothing was more interesting than the disposition everywhere manifested to adopt more reasonable and conservative methods of extraction of cataract, in place of the vagaries which have found more or less favor during the last ten years. During this period, two methods especially have emanated from Berlin—extraction by means of scoops introduced within the eye, and the "new method" of Von Graefe, termed "linear extraction." Both of these were equally heralded as wonderful improvements upon previous operative procedures, and, according to the statistics furnished by their advocates, gave a larger percentage of success. Unfortunately, the same favorable results were not obtained in other hands, and the first of the methods, by outscooping, although much lauded for a time, has already met its fate and may be dismissed from notice. The second is still more or less employed, though I found it frequently so "modified" that its claims to legitimacy had become doubtful. The objections to this operation were many, and the six years since its conception have been too short a time to warrant the extravagant claims put forward in its behalf, since the frequency of secondary ill consequences, which might be predicted as almost certain to follow it, would, of course, be left out of sight in announcing the immediate results.

Among these objections, one of the foremost was the placing the incision so near the ciliary region, where all scientific oculists are agreed that wounds are dangerous, as being liable to result, at some subsequent period, in sympathetic inflammation of the other eye. The chances of separation of the retina, the frequent loss of vitreous during the operation, the necessity for the removal of a part of the iris, and the long-continued manipulation of the eye required for the extrusion of the whole of the lens-fragments through the small wound, were other objectionable features of this method, which could only be tolerated if the proven results justified the clumsy and unscientific means. It seems now to be probable that the substitution

of the very narrow-bladed knife of Von Graefe for the broad, triangular knife will be accepted as the only permanent and true advance in ophthalmic surgery contributed by the "linear method," the disposition to seek out a more excellent way being almost universal.

The method of M. M. Lebrun and Warlomont, of Brussels, of extraction by a "median section" through the upper portion of the cornea, practiced also by M. Liebreich through a lower section, seems to offer the happy *tutissimus ibis*, between the large peripheral section of the cornea as originally practiced, and the linear extraction. It is certainly more in accordance with the anatomical relation of the parts concerned in the operation, and thus better adapted to ensure the largest ratio of success. These reasonable expectations of good results seem to be fully justified, and I had an opportunity, especially at the clinique of M. Liebreich, to examine a large number of eyes recovered from this operation, where the optical conditions were excellent.

In doing this operation by the upward section, the narrow knife is entered through the cornea, at its very margin, at the point of termination of its horizontal axis, and is passed on in the direction of the diameter of the cornea, to make the counter puncture at the opposite point. The incision is then completed, not parallel to the iris as in the peripheral section, but in such a direction that the apex of the slightly curved flap is opposite the upper border of the moderately dilated pupil. From its situation, and its adaptation to the curved surfaces of the lens, this section is most favorable for the easy exit of the cataract, which does not crowd forward and contuse the iris, as in Daniel's method, but escapes readily through the pupil and through the wound. No mutilation of the iris is necessary, and the loss of any portion of vitreous humor is not likely to occur, whilst the form of the cut is best adapted for immediate healing.

There is little tendency to prolapse of the iris after this operation, and one of the great dangers of flap extraction is thus avoided, without the necessity for recourse to iridectomy. The scar of the incision soon becomes nearly imperceptible, and being beyond the field of the pupil at its ordinary dilatation it does not impede vision.

The importance of this innovation, already extensively adopted as a substitute for linear extraction, is my sufficient apology for bringing it thus soon to the notice of the profession in America, although I have as yet performed it only six times since my return home. But such a section

of the cornea is not wholly a novelty with me. Having always been partial to extraction by some method not requiring iridectomy, I have, sometimes, in eyes where the cornea was large, made the incision terminate at some distance from the corneal border, and the excellent results in these cases would long since have induced me to adopt the "median section" as the best, had I not deferred to the opinions of various authorities who have insisted that wounds at the periphery of the cornea were most favorably situated for immediate union. My own experience, therefore, is not wholly limited to the success of these recent operations, but has been such as to prepare and induce me to accept the facts in favor of the median incision which I lately had opportunity to observe on a large scale in Europe, and I can confidently urge a trial of this operation as offering large chances of favorable results.—*Boston Medical and Surgical Journal.*

Editorial.

A Move in the Right Direction.

At the recent meeting of the State Medical Society the following resolution was introduced by Dr. Ira Oatman, of Sacramento:

"*Resolved,* That it is the duty of, and we hereby recommend to, the Legislature of California to pass a law making it a misdemeanor for any person, for any purpose whatever, who is not a graduate of some institution of learning authorized by law to confer the degree of 'Doctor of Medicine,' who shall place before or after his or her name, in any manuscript, label, wrapper, card, handbill, circular, newspaper, pamphlet, magazine, book or any advertisement, the word 'Doctor' or the abbreviation M. D. or Dr., or any others signifying directly or constructively that the person is a graduate of such an institution, or who shall authorize or sanction the same by others in his or her interests; and that any person found guilty of such misdemeanor shall be punished by a fine of not less than ——— dollars, or imprisonment for not less than ——— years, or by both such fine and imprisonment."

Perhaps in no State of the Union does quackery "run

riot" as in California; nowhere that it reaps such rich reward; nowhere that it is countenanced by the (in other matters) intelligent people to the same extent; nowhere that the audacity or impudence that characterizes the charlatan, whether it be the nostrum vendors on the corners of our streets, that make "night hideous" by their bawlings, or the more genteel but proportionately dangerous pretender, that reclines on his satin-covered ottoman, surrounded by gilded walls and attended by a retinue of servants, is encouraged in the same degree; nowhere that signs stretching from building to building, emblazoned with Dr. ———, M. D., Astrologer and Physician, would in the same manner be permitted; nowhere that newspapers seem to have such an utter disregard for the interests of the populace in this direction; nowhere that respectable men allow themselves to be used through the furnishing of certificates of miraculous cures to dupe others, or bolster and encourage the deception practiced by these tinseled mountebanks; and hence, nowhere that these shameless things make so strong an appeal in behalf of the unwary sufferer and humanity in general, for the protection which the law-makers have it in their power to furnish, through the enactment of a law or statute, which shall embody the ideas contained in the resolution of Dr. Oatman.

When may the people of California look with confidence to their Legislature for such laws bearing on this and similar questions as will prove wholesome? When will the strong arm of the law be outstretched to protect the stranger —the sick man in his anxiety for health, grasping at straws— from the snares besetting him on every hand?

It may be reasoned by some, as it has been many times in our legislative halls, that any law which is specially protective, or that shall extend itself to one class only, is unconstitutional; a reasoning which is in itself specious, advanced usually by such as are to be affected by it, but which we contend is not tenable in anywise. But if it be so, if it is that the people cannot secure to themselves, through their representatives, because of constitutional disabilities, that safety which wholesome laws afford—then

say we, *amend* the Constitution, as has been done before, that the greatest good may be vouchsafed the greatest number.

Or if it be as we suspect, that all effort at legislative action heretofore has failed because of the venality of those whom we had the right to turn to for aid—then we say, let the people look to it that none are sent to represent them who are not in fact and in truth representative.

Let every diplomated doctor in the State interest himself in this matter, using his efforts to secure the selection of such men, who, when they reach the legislative halls of the State, will not forget or be influenced prejudicially in their obligation to the people who sent them there.

We honor Dr. Oatman for the stand he has taken, and hope that, living as he does at the Capital, he will, with the coöperation of the loyal members of the profession (of which class there are many in Sacramento, who will, we feel assured, with the unanimity and earnestness which so distinguishes them), use every effort to secure the passage of a proper statute, which shall, in its operation, carry out the intention of his resolution, and we here pledge the support of THE LANCET in their laudable efforts.

Anæsthesia.

Some of the New York papers of June contain accounts of the recent Wells meeting held in that city, in exposition of the subject of anæsthesia, at Steinway Hall, when Dr. J. Marion Sims, of vesico-vaginal-fistula distinction, read a very interesting and exhaustive paper on the inception, advance and recognition of the power of certain agents, when inhaled, to suspend completely or partially, nervous manifestations. He confined himself principally, in illustration, however, to nitrous oxide or laughing gas, chloroform and ether, and whilst paying a handsome tribute to Morton and Jackson, of "ether" celebrity, and Sir J. Y. Simpson, whose name is inseparably associated with chloroform, in the most emphatic manner claimed for Dr. Horace Wells the distinction and honor of having first made the discovery

that certain agents, as nitrous oxide, would suspend sensibility—hence establishing the greatest boon that has ever fallen upon suffering humanity. In these views and opinions, as expressed by Dr. Sims, he was supported by remarks from Prof. R. Ogden Doremus, Prof. Frank Hamilton and others. The meeting was largely attended, and was conducted under the auspices of many of the leading members of the profession.

Dr. Logan's Address.

We are in receipt of a copy, in pamphlet form, of the very able address of Dr. Thomas M. Logan, President of the American Medical Association, delivered in St. Louis, May 6th, 1873, and are glad to learn that it has been widely distributed throughout the State in this form, as it is one of the most exhaustive and sensible disquisitions on the subject of medical education that it has been our good fortune to read in many years. It may possibly be a little in advance of the time, but, to use the language of the author, "that, before the close of the present decade we shall witness a total revolution in our system of medical education," is as certain in our judgment as can anything in the future be. We regret that our space precludes even a synopsis of this very interesting lecture. Yet as it has been sent to most of the members of the profession throughout the States, we earnestly request that it be universally read, more particularly since it treats of many matters of vital importance to us as practitioners.

Capital Punishment.

The following article from the Cincinnati *Lancet and Observer*, we insert editorially, on account of the importance it commands. The practicability of the suggestions, and the proposed humane innovation upon the present method of administering the death penalty, will impress the mind of the reader as subjects that should engage the attention of the "powers that be," and humanitarians generally:

"We will doubtless all unite in the opinion that certainty of execution is the chief value of all penalty. This *uncertainty*, or rather the almost absolute certainty that extreme penalty will not be inflicted, is the encouragement to the murderer that his crime will somehow go unpunished. These questions of criminal law, however, are not so much a matter of professional inquiry or interest, as that other question—how shall the extreme penalty of the law be best fulfilled? The question of humanity should never interfere with the power and influence of law; but if the control of law and the sanctity of humanity can be made to accord, all will certainly say 'amen!' If it be well to make death the penalty of certain crimes, the question comes to medical men, how shall this extreme punishment be inflicted so as to meet the requirements of justice, and yet avoid unnecessary cruelty in its execution. In various countries, death has been secured by hanging—as in this country—by the garrote, by the guillotine, by shooting. Some experiments by Prof. Brown-Sequard would seem to indicate that death by the guillotine is perhaps one of the most cruel of all known modes. Of course a headless man does not come back to tell us how long or how extremely he suffered; but we are led to infer that the cruelty of this punishment is beyond the general conception. Death by hanging is, to say the least of it, coarse and brutal. Its influence on the public mind cannot be elevating or conservative of morals of itself. So we come back to repeat, *extreme* punishment, as by death, is only of value, so far as penalty follows close on crime. Now, if death shall continue to be a proper penalty for murder, the question for us, as medical men, to consider, is, how shall death be inflicted? Shall we shoot the culprit, or hang him like a dog, or cut off his head? The displays to morbid appetite in first-class hangings are too notorious to require comment. We respectfully suggest, then, that our professional influence should be exerted to a more rational and decent death penalty. Let the criminal be required to die by chloroform, for example, or the inhalation of carbonic acid gas, quietly, in his cell, surrounded, if you please, by his medical and

spiritual advisers. Death by chloroform is sufficiently certain; should not be a matter of public and morbid exhibition; is not cruel; all the requirements of the law are complied with. We demand, then, these two points—certainty of execution and humanity of the manner."

Miscellaneous.

INTRODUCTORY EXERCISES

OF THE

MEDICAL DEPARTMENT, UNIVERSITY OF CALIFORNIA.

The opening exercises of the Medical Department of the University of California, took place June 3d, at Pacific Hall. The Regents of the University were present. On the platform were Governor Booth, Judge Field (of the U. S. Supreme Court), Mayor Alvord, President Gilman, Regents S. F. Butterworth, J. W. Dwinelle, Horatio Stebbins, W. C. Ralston, J. West Martin, Dr. A. J. Bowie, Hon. Jno. F. Swift and A. J. Moulder; Doctors Toland, R. B. Cole, Brigham, Stout, Morse, Chase, Bates, O'Neil, Logan, Deane, Martinache, Fish, Ayer, Bradbury, Pigne-Dupuytren, and Soule.

The hall was crowded. Governor Booth, President of the Board of Regents, occupied the chair. After prayer he made a few introductory remarks, saying that the exercises were the inauguration of the first course of lectures, to be delivered at Toland Medical Hall, under the new auspices of the University.

President Gilman then delivered an address on the relations of the University to the community in all departments of progress. He said:

The object of the University of California is to teach the people—not the young men only, nor the young women only; not the professional man alone, nor the practical man alone, but the entire country—not simply in the class-room and the lecture, in the daily recitations or the term examinations, but by all the forces which can be exerted by dead matter and our living men. The university of our day must teach by laboratories and collections, by libraries and museums, by observatories and philosophical apparatus, by botanical gardens and the arboretum, by paintings and

casts, by relics and astronomical documents, by all the products of the natural world, and by all the mementoes of human thought and action. And yet its still higher function is to teach by living men, whose powers are trained, whose aspirations are high, whose knowledge is extensive, and whose sympathy with humanity is glowing like the sun and enduring as the stars; by living men who make researches and discoveries in science and literature, and who toil in secret that they may teach the public. On this broad platform of universal knowledge and of universal benefits, the University of California has been organized. The plan on which it is projected may not at once be carried out; years of toil and thought are doubtless the inevitable portion of those who administer its affairs. But the acorns which are planted are the seed of the oak—the live oak of the centuries—and by and by the trunk will strengthen and the branches will expand, and the foliage will come forth, till beneath the capacious shadows of the academic groves, generations of California youth will fit themselves for the activities and the enjoyments of noble lives; while the busy and perplexed, the weary and the aged, will retire to its calm retreats for refreshment and repose.

The modern university must be a very complex organization. It must involve and employ all the agencies of modern civilization for the training of the human brain. Indirectly and incidentally the university will unquestionably promote wealth; but its avowed and specified object is to develop MEN—to make the society in which it is placed more intelligent, virtuous and happy. Its facilities and its means of culture must therefore be as varied as the wants of mankind. Its funds can never be too ample. A modern university is expected, of course, to perpetuate the knowledge of the past, and hence a classical department, of course, must be maintained; but the modern languages are now of transcendant importance, and of course opportunities must be afforded for their acquisition. Science must be cultivated for its own sake and for its applications. Hence we must have a school of mines and agriculture, engineering and architecture, chemistry, and the mechanic arts; law and medicine, one of which protects our property and the other our persons, must, of course, be encouraged; theology, ethics and philosophy have claims which cannot be disregarded; art must not be overlooked; and so it is that there is no end to all the powers of a university to employ money for purposes, each of which in a general way to all, and in a special way to some one of us. Hence, ladies and gentlemen, in this community, where the requirements are so numerous, and the funds are wholly those provided

to-day, we must seek for union, cöoperation and combination; that we reduplicate as little as possible, and that we concentrate as much as possible. The University of California cannot have a rival.

Whatever work other institutions will do to the satisfaction of the community, the University can relinquish. It will still have a wider field than it can hope to till. On the other hand, the university should seek to be affiliated with all the higher existing institutions. Already, in the true spirit of cöoperation, the Organic Act, on which it is based, recognized the value to this community of the State Agricultural Society and the Mechanics' Institute, appointing their Presidents members of the Board of Regents. To-night we are assembled to bear witness to the union with the University of three other organizations—a College of Medicine, a School of Pharmacy and the State Dental Association. I am confident from the words which have fallen from the lips of Mayor Alvord and other friends of the Art Association, that when their plans are perfected, the students of this University will be allowed to avail themselves thereof. In these days, when books are so much needed, the Odd Fellows' Library Association has generously and gratuitously opened its doors to the University Professors, and the Mercantile and Mechanics' Libraries are certainly never closed to us. One of the Justices of the U. S. Supreme Court —Judge Field—shows a spirit of cöoperation worthy of his high station, and stands ready to lend a hand in the training of our youth by a course of instruction in Constitutional Law. The head of the U. S. Coast Survey on this coast, and the Academy of Sciences, over which he presides, are likewise cöoperative. The State has provided that we shall receive the collection of the Geological Survey. The Engineer of the Golden Gate Park is gratuitously helping us in the development of our site at Berkeley, adapting it in an orderly, and at the same time in a beautiful way, to the requirements of a seat of learning. There is even a place for the cöoperation of other existing institutions. The College of California has generously bestowed upon the University its site and property; other institutions propose to establish themselves near the site, and concentrate there the spirit of literary zeal.

Is not the exhibit I have made full of encouragement? But I have not done. I must bear the tribute of praise to the State which has endowed its University, and provided for its most pressing needs and for its future maintenance.

It is not the knowledge which a college imparts which makes colleges valuable.

Men are not sent to college to be fattened or to be fed;

they are not sent to be adorned with plumes and laurels, nor to be equipped with swords and guns. A college is not chiefly a mental armory, nor an intellectual store house, nor an educational tool shop, nor an enjoyable dining-table with its "feast of reason and flow of soul." It is a place for the manufacture of men, a place where all the experience of the world should be centered for the formation of character, for the development of latent powers, for the bringing out of the higher nature, for the maturity of the judgment and the acquisition of wisdom. Now, so popular, so complex, so enduring, and so delicate an organization, for such a lofty purpose, cannot be gained without time and patience. I wish that the public of this city and of the State might know how earnestly the Regents of this University, as a body, are striving for this high object. I have had the best opportunities during seven months to discover their methods and their motives; and though some of them are here present, you must let me say that I do not believe a more devoted, representative, far-sighted body of men of equal number could be brought together for this work, or a body more purely devoted in their associated labors to the advancement of the university idea. To their united influence and coöperation this work is entrusted. The University will be the resultant of these complex forces.

Hitherto, the Departments of Letters and Science have alone been maintained. Nine professors and five additional instructors are engaged in the instruction of one hundred and eighty-five scholars. The traditional college and the modern school of science are alike maintained; but double the number of teachers should be at once employed, if the demands of this community for varied and exact training are to be met. The philosophical and chemical apparatus are good. Two buildings, large and commodious and well equipped—one of them built of wood for briefer service, one of them "earthquake-proof," of brick and iron, both the liberal gift of the State—are rapidly drawing to completion. The commencement will be held at Berkeley next July, and the instructions of the next year will commence next autumn. A class of twelve young men are about to graduate. The library is rapidly growing. It already contains about 11,000 volumes, half of them the accumulations of the past few months. The cabinet and museums are receiving generous accessions. I can hardly go through Montgomery street on a sunshiny day without the offer of a book, a picture, a specimen, or a map. Now comes the Department of Medicine.

This is its first appearance before the public. For many years, a surgeon of San Francisco, in extensive practice, has

cherished, in his quiet hours, the desire to do something for the benefit of the profession of his choice, something which should live when he is gone, and benefit humanity by its perpetual vitality. With this liberal intent, he set apart a considerable sum of money (I do not know how many thousand dollars), with which he bought a piece of land, on which he erected a hall for the study of medicine. On the improvement of this building he has again expended a large sum. For several years this surgeon and his associates have given medical instruction, and have graduated successive classes of young men. Most unexpectedly, a few weeks since, the Regents of the University were notified that the Trustees would transfer this property, valued at $70,000, absolutely, without condition to their ownership. It was a generous recognition on their part of the growing importance of the University, and a testimony of their desire to unite in building it up. Actuated by the same motive, the Regents of the University cordially invited the Professors who had there been instructing, and those who were also engaged in another medical school, to unite in founding the Medical Faculty of the University of California; and they hoped that the time was now ripe for the healing of past differences, and for the union of all who desire the highest progress of medical science in one body. It seems that they were a little before their time. The hour has not yet come when such a union can be brought about, and a portion of those thus asked to join in the Faculty have seen it to be their duty and their privilege to remain in other connections.

President Gilman here alluded to the additional advantages secured by the University, in having the California College of Pharmacy and the School of Dentistry connected with its medical department. Four different departments of work—the great departments of medicine and surgery, and the minor ones of pharmacy and dentistry—would go hand in hand for the welfare of mankind. Speaking as a layman outside the profession, in the name of others who were outside of it, he welcomed the department, and they would second to the utmost of their power everything that could be done for its advancement. President Gilman then touched upon the essential value of having young men, who are destined for the medical profession, prepared for their studies by a preliminary training in branches of science which have a direct bearing on the science of medicine. By measures of this kind a great impulse would be given to medical education.

What, continued the President, may we hope to do in the medical school? That, ladies and gentlemen, depends up-

on you. It depends upon the public; it depends upon how far the community will help forward the idea which the Professors in the institution, and those who control it, are so ready to bring out. Modern experience has taught us that medical education should not be restricted to a few months of summer or a few weeks of winter. It has taught us that such instructions should run through the entire year, as it does in other departments of study. It has taught us that there should be a progress in themes, beginning with the more elementary, and advancing to the more special. It has taught us that two years is too short a time in which to prepare for so difficult a calling. It has taught us that the terms on which the diplomas should be granted, should be strict and rigidly adhered to. It has taught us, also, that the State should not only open the door for observation in the various public institutions, but should recognize the diploma as a public guarantee that men have labored long, have studied well, have observed closely, and have fitted themselves for the difficult and delicate professional duties which are to devolve upon them. Now, that is our scheme of medical education. [Applause.] It is comprehensive, and more than can be attempted at once: we must, therefore, step by step look forward to the time when all these points will become real, and in order to make them real, we must ask you, and all whom you can influence, to cherish these thoughts, and to record them by your work; and we must also trust that your generosity will not fail us. As long as California shall last, may the University live.

If I could leave a single thought on your minds, it would be this: The University of California—may it ever be young, and when it adds the experience of age to the hopes of youth, may it still testify that, while knowledge is silver, wisdom is gold. [Applause.]

Dr. Stebbins then delivered an address, with special reference to the Department and medical science, and, on behalf of the Regents, tendered their congratulations and good wishes to the Medical Faculty.

The meeting was closed with the Benediction. At intervals during the evening, performances were given by Alpers' Band.

Annual Meeting of the California State Dental Association.

On the 20th of May the California State Dental Association commenced its fourth annual session at 10 A. M.; Dr. Dutch presiding. Rev. Dr. Cox opened the proceedings with prayer.

On motion, the President's annual address was made the special order for 3 o'clock P. M.

New Members.—The following names of applicants for membership were referred to the Committee of Arrangements, and having been favorably reported upon, were unanimously elected: Drs. J. W. Winter, Alexander Warner, D. D. S., C. W. Richards, and J. Nis, of San Francisco, and G. C. Hoadley, of San Jose.

Afternoon Session.—The Convention met at 2 o'clock, and the following-named applicants were elected members of the Association: F. H. Hubbard, M. D., of Sacramento, William H. H. Stanley, D. Vandenberg, of San Francisco, and J. J. Dyer, of Santa Cruz.

On the recommendation of Dr. Dutch, O. D. Munson, of San Francisco, a retired member of the profession, was elected an honorary member.

Dr. Bunnell stated that Professor Gilman, of the State University, was willing to address the Convention upon the the subject of the formation of a Dental College, connected with the State University.

A committee was appointed to extend an invitation to Professor Gilman, to address the Convention this evening, at half past seven o'clock.

Dr. Dutch then read the annual address, which was received with applause.

A resolution was adopted, that all treatises, reports and essays read before and accepted by the Association, should become the property of the Society, and be passed over to the Secretary immediately after their acceptance, unless permission be given for their withdrawal by a majority vote of eight.

Dr. Dennis read a report on Operative Dentistry, which was well received.

Dr. J. B. Beers, of San Francisco, was then elected a member of the Association.

It was decided that Dr. Dennis lecture on Dental Clinics, at his office, to-morrow, at 8:30 A. M.; Dr. Knowles, at 12:30; and Dr. Knox, at 2 P. M.

Evening Session.—The Convention met at 7:30, and postponed the discussion of the subject of Operative Dentistry until the next meeting.

Dr. E. S. Knowles read an interesting essay on Dental Pathology, which he stated was the property of the Dental College, having been previously read before that institution.

Then followed a long discussion on Dental Caries. Dr. Knowles and some others contended that there was vitality in the dentine but none in the enamel of the teeth, while others argued that there was vitality in both. The question of the existence of a membrane between the enamel and the dentine was then discussed, after which Dr. Knowles invited

those members who desired, to remain after the close of the meeting and investigate the matter by the aid of a microscope.

It was announced that Professor Gilman had accepted the invitation, and would lecture before the Association this evening at half past seven o'clock.

The Convention adjourned until to-morrow, at 8 A. M.

SECOND DAY.

The second day's proceedings of the State Dental Association's annual meeting commenced to-day, at 10:45 A. M., President Dutch in the chair.

The Secretary read a letter from Dr. S. M. Harris, of Grass Valley, Third Vice President of the Association, stating that a recent death and present illness in his family prevented his attendance at the present session.

The discussion on operative and surgical dentistry was then continued, the speakers illustrating their methods on the blackboard. During the discussion, the President read a letter from Dr. George H. Chance, of Salem, Oregon, in which he highly recommended gold points for pluggers, and exhibited some of these points and pieces of gold rolled up, and the plug inserted by the pluggers.

The following resolution was adopted:

Resolved, That the faculty of the Medical College of the Pacific, and of the Medical Department of the University of California, also all members of the medical profession in this city, be invited to be present during the delivery of an address this evening, by President Gilman, on "The Formation of a Dental Department."

A committee of eight was recommended to confer with the Board of Regents of the State University upon the matter of a Dental College in connection with the Pacific University, and the selection of such professor or professors in California as they may deem competent and worthy. Laid on the table.

Here the Convention adjourned until 2 o clock P. M.

Afternoon Session.—The Convention assembled at 2 o'clock, and elected F. M. Hackett, of San Francisco, to membership.

Dr. Younger, Chairman of the Committee on Dental Pathology, read an interesting report on necrosis of the teeth. A long discussion followed, on the efficacy of aromatic sulphuric acid, when used in such cases.

Dr. Roberts exhibited a piece of necrosed maxillary bone, presented to him by Dr. Lane.

The Convention then adjourned until 7 P. M.

Evening Session.—When the Association met at 8 o'clock, the President introduced Professor Gilman, of the State University, who stated that if he had been earlier aware of the importance that was to be attached to what he would say, he would have written out his remarks. But he had been interrupted by the visit of the committee appointed to wait on him. He thought that the State University, at the present moment, required the support of every lover of truth and progress. It had been endowed by the National Government with land grants, and had received from the State of California generous appropriations. It was now just beginning to gather in the harvest of endowment from men of wealth. The University, in addition to instructing our young men in the rudimentary branches, was designed to fit them for professional life. And there was not a patron or scholar who would not say, "God speed the institution." Before the authorities had begun to mature their plans, their attention was called to the subject of medical education by a most generous gift. A piece of land was presented to the institution, with the understanding that when sold, the proceeds should be applied to medical education. The Board determined at once, perhaps injudiciously, to organize a medical department. Gentlemen were selected as professors, who, for some reason, would not serve; but the Board of Regents hoped that others would go in and build up this branch of the University education. They had certain general studies subdivided into different departments. There was no interference of one with the work of the other. In the Dental Department he hoped he would find gentlemen from this body who would help them. He thought he was safe in saying on behalf of the Board of Regents that it was desirable that there should be a movement by this Society to assist in organizing a Chair of Dentistry. It seemed to him that the Association was just now for union, and that the only thing they required was combination for good results. He then stated that he had spoken longer than he intended, and sat down.

Dr. Dutch, the President, in replying, said that he felt somewhat embarrassed at the position in which he found himself, and thought perhaps some explanation might be necessary. They had worked for the last few months as a unit in one direction—toward the elevation and the progress of the profession. The first announcement that was made of the action of the Board of Regents was made through the columns of the newspapers. There has not been a proper amount of respect paid to the profession by the Board of Regents of the University. He might be wrong,

and the Regents might be right; they might go on and ignore the Society altogether, and establish the College. He was sure, however, that every gentleman present would be glad to see a Dental College established. At the conclusion of these remarks, Dr. Gilman whispered something to Dr. Dutch and went out of the room, followed by Drs. Younger and Knowles, who returned without him.

The report of the Testimonial Committee was then received. They exhibited to the Society a gold medal bearing the following inscription: "Presented to S. C. Barnum, D. D. S., by the California State Dental Association, as a mark of esteem for the liberal contribution of his great invention, the rubber dam, May 22, 1873."

The medal is of solid gold, about three inches in diameter. A wreath of laurel leaves of differently colored gold surrounds it, and the whole is surmounted by a grizzly bear. The pin is composed of nine different varieties of quartz. On the reverse of the inscription is the monogram, "S. C. B.," in which are set forty-eight diamonds. The medal weighs six ounces, and the exact cost, as stated by the President, was $412.

It was resolved that an assessment of $10 be levied upon each member, in order to pay for the testimonial. $325 was then collected, when it was resolved that the motion levying the assessment should be withdrawn.

Dr. Menafee read the report of the Committee on Mechanical Dentistry.

Dr. Bush, of the same committee, read a paper advocating the use of rubber plates instead of gold for sets of teeth, whether full or partial.

Dr. Shields recommended metal aluminium as superior to either.

The following named members were appointed a committee to confer with the Advisory Committee of the Board of Regents of the State University, on the subject of the establishment of a Dental College, Knowles, Lundborg, Birge, Coggswell, Bunnell.

THIRD DAY.

The Convention met pursuant to adjournment. Drs. C. E. Blake, of San Francisco, and D. N. Powers, of Oakland, were elected members, and E. S. Belden, M. D., an honorary member of the Association.

A Code of Ethics was reported and adopted, and a committee was appointed to prepare rules of procedure.

Drs. Prather, Myres, Schel and Austin read essays, and a committee was appointed to draft resolutions of respect to the memory of D. O. Bell, deceased since the last meeting of the Association.

Dr. Knowles, Chairman of the Advisory Committee, reported the result at the evening session, and recommended that the whole subject matter be considered by the Convention at half past ten o'clock to-morrow morning, together with dental education generally, and the wants of the profession on the coast. Dr. Knowles said that two propositions were suggested as being proper to lay before the Convention. First, that it should give expression to its opinion as to its wants in the formation of the dental school, and second, that it should select gentlemen of the profession to fill the chairs in the school, subject to confirmation by the Board of Regents of the University. And further, that an Advisory Committee be appointed to act with the Board of Regents in completing the details of the school. The following chairs will be established: Special Anatomy and Surgery; Institute of Dental Science; Operative Dentistry and Pathology; Demonstrator of Operative Dentistry; Demonstrator of Dental Prosthesis; Corps of Clinical Lectures, and Board of Examiners. The report was received, and the matter will be discussed as appointed.

It was resolved that it would be considered unprofessional to grant a certificate to practice to any student who has not had two years' office instruction, besides the time devoted to his collegiate course.

A resolution was adopted that all members who are in debt to the Association for more than a year's fees will be dropped from the roll, unless they pay up within a month.

The following gentlemen were elected officers of the Association for the ensuing year: President, Dr. C. C. Knowles, of San Francisco; Vice-President, Dr. J. J. Menafee, of San José; Secretary, Dr. H. J. Plomteaux, of Woodland; Corresponding Secretary, Dr. H. E. Knox, of San Francisco; Treasurer, Dr. H. Austin, of San Francisco; Librarian, J. J. Birge, of San Francisco.

FOURTH DAY.

Association convened at 10:45. President Knowles in the chair. The subject of dental education and the establishment of a Dental College was taken up, and the following resolutions, offered by Dr. Knowles on behalf of the Advisory Committee, were adopted:

Resolved, That this Association receives with unqualified satisfaction the assurances that our most cherished hopes are to be realized through the wisdom and liberality of the Board of Regents of the California University in their proposed establishment of a Dental College.

Resolved, That we approve of and recommend the follow-

ing curriculum of instruction in the College: 1, General Anatomy and Surgery; 2, Physiology; 3, Materia Medica and Therapeutics; 4, Chemistry and Toxicology; 5, Special Anatomy and Surgery; 6, Operative Dentistry and Pathology; 7, Dental Prosthesis and Metallurgy; 8, Institutes of Dental Science; 9, Demonstrata of Operative Dentistry; 10, Demonstrata Dental Prosthesis; 11, Course of Clinical Lectures; 12, Board of Examiners.

Resolved, That the Association endorse and recommend the following named eight gentlemen as proper persons to fill the special chairs above designated: Drs. S. W. Dennis, William Dutch, C. C. Knowles, H. E. Knox, W. J. Younger, S. E. Knowles, H. Austin and J. Menafee, (who were elected by ballot.)

Resolved, That an Advisory Committee of five be appointed and empowered to act with the Advisory Committee of the Board of Regents in carrying into effect all necessary details of the organization.

The Convention then adjourned until 2.30 P.M.

Afternoon Session.—A. B. Wood, of San Francisco, was elected a member; also T. H. Furgeson, D. D. S., of San Francisco.

The Legislative Committee made a report recommending a bill to be presented to the next Legislature for its action thereon. The bill, which was adopted, is as follows:

A Law to regulate the Practice of Dentistry in the State of California.

Be it enacted by the General Assembly of the State of California, That it shall be unlawful for any person to practise dentistry in the State of California for compensation, unless such person has received a diploma from the faculty of a Dental College, duly incorporated under the laws of this or any other State of the United States, or foreign country, or a certificate of qualification issued by the Board of Examiners of the State Dental Association; provided, that nothing in this section shall apply to persons now engaged in the practice of dentistry in this State, before the first day of January, 1876. Said Board of Examiners shall be appointed by the President of the California State Dental Association, and consist of three practitioners of dentistry, who shall be regular graduates of a Dental College, duly incorporated under the laws of this or any other State of the United States, or persons possessing the evidence of qualifications contemplated in this Act.

The Board of Examiners shall serve for a term to be determined by the California State Dental Association.

The Board of Examiners shall meet at San Francisco, California, at least once a year, for the purpose of examining applicants, after havinggiven at least sixty days' notice of such meeting in some newspapers, published in the cities of San Francisco and Sacramento, of general circulation throughout the State. They shall have the power to make such arrangements as shall be necessary for the prompt and efficient performance of their work as such Examiners.

Each applicant shall, on receiving a certificate, pay into the treasury of the Board the sum of ten dollars, which shall constitute a fund to defray the expenses of the Board; and out of the fund thus created, each member of said Board of Examiners shall receive the sum of ten dollars per day, and all necessary expenses, for services rendered as such Examiners.

Any person who shall practice dentistry without having complied with the requisitions of this Act, shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be fined not less than fifty dollars, nor more than two hundred; provided, that nothing in this Act shall be construed to prevent physicians and surgeons from extracting teeth.

All prosecutions under this Act shall be by indictment before the Justice Court, in the county where offense shall have been committed, and all fines imposed and collected under the Act shall be paid into the treasury of the county where such conviction shall take place, for the use of the common schools within such county.

This Act shall take effect and be in force from and after its passage.

The President appointed Drs. Cutler, Bunnell, Birge, Lundburg and Cogswell, to act as an Advisory Committee.

Dr. Bunnell read a paper, entitled "Dental Ethics," which was received with applause.

The meeting then adjourned until seven o'clock P. M.

Afternoon Session.—At 7.20 the meeting was called to order.

A resolution was adopted, thanking the press for the manner in which it noticed the proceedings of the Association.

Dr. R. Cutlar read an essay, entitled "The Mouth, its Structure and Functions."

A vote of thanks was tendered to the retiring officers.

The Association adjourned until the first Tuesday in June.

After the adjournment, the Association proceeded to Martin's Restaurant and partook of an excellent collation, given to the State Association by the San Francisco Association.

THE

WESTERN LANCET:

A JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

FOR JULY, 1873.

Surgery.

Plastic Surgery.

BY CHARLES B. BRIGHAM, M. D., SAN FRANCISCO.

II.

Let us consider some of the general principles of Plastic Surgery, as regards the third process, before entering into the details of particular operations. First of all, a thorough knowledge of anatomy, delicacy of touch and minute care are required in this branch of the art. The surgeon having decided upon the operation, has to consider from what part he will take the restoring skin, and of what size and shape the flap shall be. We should select the flap from the most elastic and thickest portion of the neighboring skin, both because after the operation the borders of the wound are more easily approximated, and because the thicker skin fills out better the depressions which are so likely to exist in the deformities of the face. The size of the flap taken should be a little longer than the actual measurement of the part to be restored. Skey says: "At least a quarter of an inch on all sides should be allowed for the contraction of the skin." At the same time we should remember that a surplus of tissue often makes an appreciable deformity.

Various discussions have existed as to whether or not the flap can be taken with good result from cicatricial tissue. It depends much upon the origin and age of the cicatrix; first, on the origin, because wounds from pointed and cutting instruments, contused wounds, and those from burns and ulcers, leave behind them each a different form of cicatrix; second, on the age, because, as time goes by, the tissue takes on the appearance of skin to a greater or less extent; or it forms ridges, or excrescences, or hollows, and becomes more or less tough and unyielding, and more or less connected with the subjacent muscular tissue. If the cicatrix is old and smooth, and appears well nourished and organized, and is soft and elastic, the flap can be taken from it with impunity.

In one case, where the pedicles and portions of two flaps were taken from cicatricial tissue of several months' growth, I obtained a favorable result, the two flaps being perfectly united to the adjoining tissue, and that, too, by first intention. To that part of the skin from whence the flap is to be cut we should apply adhesive plaster, cut after the size and form of the desired flap; it has an immense advantage over the old way of marking out the flap with ink or the nitrate of silver, for with it no hæmmorhage can conceal the line of incision, and the edges of the flap have less chance of being injured by the forceps. If the plaster adheres, we can lift up the flap by it in the dissection. There is never any mistake about the size of the flap in this procedure. The pedicle should be as small as possible for these reasons: First: as now-a-days the flap is never turned upon itself, so as to leave the raw surface of the pedicle topmost, as in former times, nor is the latter ever divided after the flap has become united to the adjoining borders of skin, so it becomes necessary to prevent it, if possible, from forming a hump in the skin; and we should try to force it down flat into the bed formed for it during the operation—the smaller the pedicle is the better this is accomplished. Second: a very small pedicle will nourish a flap which is gigantic in proportion; and just as in some of the pendulous mollusca, the tumor of several pounds weight is nour-

ished by a cord-like pedicle. So in flaps of skin; a pedicle which measures in width one eighth of the longest diameter of the flap taken, will be sufficient to afford it nourishment.

In an operation for the restoration of an entire cheek, I had a favorable result with a flap, the pedicle of which was thus measured. Is this not because the flap depends less upon its pedicle for nourishment and life than upon its being united immediately by first intention to the adjacent tissue? Union by first intention is then to be eagerly desired in plastic surgery; it is the secret of its success as an operation in the first place, as a remedy for deformity in the second. If a portion of the flap becomes gangrenous to any extent, another flap has to be cut; and if the wound heals by second intention, we often have a scar which creates a deformity second only to the original one, to remedy which the plastic operation was performed.

Primary union in plastic surgery is often prevented, either because the clot of blood around the flaps being too great to become organized, acts as a foreign body, or because the clot changes to pus from the very first; or if the tendency of the borders of the wound is to separate themselves on account of the great tension of the parts, or if there is a foreign body in the wound, it cannot be expected to heal by first intention. The circulation and nutrition, too, are often seriously interfered with by contusions of the borders, not only of the flaps, but of the edges of the wound itself. In order, then, to best secure healing by first intention, we should be careful that the bleeding from the flap be as little as possible at the time when it is to be joined to the borders of the part to be restored. We should gently pat its raw surface with a damp sponge, until it becomes dry. The same process should be repeated with the freshly cut borders of the wound, and then they may be approximated as aptly and carefully as possible. The sutures best adapted for plastic operations, are of silver or iron wire, of catgut or of horse hair.

Dr. Marion Sims, of New York, was the first in this country to demonstrate the value and advantage of metallic sutures; later, Dr. Joseph Lister, of Edinburgh, brought

to notice the antiseptic ligatures of catgut prepared by soaking the catgut during two months in one part of carbolic acid to five parts of olive oil. The part of the stitch which is in the tissue becomes absorbed in a few days, and the knot drops off without any other difficulty. The sutures, whatever be their material, should be about one eighth of an inch apart, and not too tightly drawn. The surgeon generally places four sutures at first, two at the ends of the flap, and two on each side, so as to get it well in place; the intermediate sutures then follow, and after they are all placed, the line of incision should be slightly smeared with glycerine, and then gently patted with a handful of charpie until it is quite dry.

This is the advantage of this proceeding: the glycerine glues up to a certain extent the line of incision, and preserves its thin borders, while the charpie leaves behind it a fine lint which acts as an invisible network over the incision, keeping its borders perfectly in place and at rest. No fixed time can be given for taking away the sutures; the fourth day generally finds the wound united to all appearances, but even then if we withdraw the sutures, we run the risk of seeing our flap separate from the adjoining skin a few hours afterwards. Even if the wound has healed by first intention, it is best to let the sutures remain a week, if we see that they make but little disturbance. Of course before removing the sutures, small strips of court plaster must be placed between them as a means of precaution to avoid the chances of disunion. White plaster should only be employed for this purpose, as the black sometimes leaves its coloring matter between the edges of the wound, and makes the cicatrix of a dark color. And here let me state that one of the greatest enemies to union by first intention is erysipelas; indeed, it often happens that the flap is well nigh destroyed by the advent of this disease. To prevent it, all hygienic influences should be brought to bear; no filth of any sort should be allowed to remain in the same room with the patient; the window should be kept open a little at the top, and all currents of air should be avoided; knowing that sunlight and an open fire-place, burning wood, are

among the patient's best friends, so it is of the first imporance to secure them to aid us in the operation.

Without much faith in the external applications used in erysipelas, I have nevertheless thought to have seen the advantage of collodion spread in a thin coating over the flap the moment that the slightest blush appears. It was Dr. Ricord who suggested this to me over a year ago. We can generally decide by the third day how much of the flap is alive; immediately after it has become fixed in its new position, it is of whiter color and of a lower temperature than the adjoining skin; little by little it assumes a mottled appearance, and, as the circulation becomes established, it becomes even brighter in color than is natural, and is quite congested.

It is the custom with some surgeons to apply leeches to a congested flap, but it is questionable whether good results follow from it. Other surgeons make slight superficial incisions in the flap, and let a drop or two of blood ooze out, but even this latter method is of doubtful advantage. In case the flap be dead at its extremity, the dead tissue will be found to be flabby and spongy, and when it is pricked, will be without sensation and bloodless. After the line of demarcation becomes distinct, it will be a question whether or not to remove the dead part; my own plan is to leave it until it separates of its own accord, and for the following reasons: 1st, because we cannot be sure if we remove the dark-looking part but that the gangrene may be superficial, while deeper the flesh is alive. 2d. By leaving it to come away of its own accord, the flap is undisturbed, and it serves to keep the end of the flap in place, which, if free, would curl under, unless immediately united, through more or less tension, to the adjoining skin.

If the operation has been made in order to restore a lip or cheek, and the flap be held in place only by its edges, as is sometimes the case, then the removal of the dead part, if it be of some size, is indeed contra-indicated; for it acts as a plug to the fistulous opening, and the surrounding skin, to get rid of it, takes on a new and increased action, and, as the dead part becomes smaller, it follows it up, and finally

the opening is wholly filled. Now, if the plug were of charpie, would it not be equally useful in closing the fistula? I think not; for a plug of charpie, instead of diminishing in size, swells and irritates the wound much more than the dead tissue. But by all means, if the dead tissue comes away spontaneously, we should cover the opening with charpie, soaked in a mild solution of carbolic acid and glycerine (one part to twenty), and then leave it unchanged for several days. If we constantly change it, the granulations do not get covered with the protecting layer of pus, and instead of increasing, they diminish in number.

(Clinic of Dr. H. H. TOLAND, City and County Hospital.)

Elephantiasis Arabum.

C. D., aged 28, admitted March 20th, 1873, with enlargement of genital organs from Elephantiasis. The scrotum was distended to about the size of the closed fists; the integument thickened, red and deeply corrugated; and the penis a shapeless mass from infiltration of the skin, and subjacent tissue of the shaft and prepuce. At various spots on the inferior surface of the scrotum, ulceration had set in, the sores presenting a dirty, oozing appearance, with a tendency to sloughing. The disease came on two years ago while the patient was in Montana; resulting, he believes, from exposure to cold. He had been taken in hand by a large number of practitioners, both regular and irregular, since its inception, without benefit; the tumor continuing slowly to enlarge.

On entering the hospital, he was placed under the care of Dr. H. H. Toland, who prescribed—

℞. Hyd. Chlor. Corros ..... gr. jv
Potass Iodid ..... ℥ ss
Tr. Acon. Rad ..... ʒ jss
" Stramonii ..... ʒ jv
Syr. Zingiberis ..... ℥ jss
Aquæ ad ..... ℥ vj

M. Sig.: Teaspoonful three times a day. Finding no alleviation of the symptoms under this treatment, the doctor determined to discontinue it, and May 3d, exchanged it for the following:

℞. Liq. Potass Arsenitis..... ʒ jv
Tr. Sennæ..... ℥ jjj
Aquæ Des't..... ℥ jjss

M. Sig.: Teaspoonful three times a day. A marked improvement set in at once. On examination, May 22d, the scrotum was considerably diminished in size, the skin and dartos presenting much less induration, and the sores granulating healthily. There is now (June 21st) scarcely any trace remaining upon the patient of this formidable disease, and he has been employed daily during the past week upon the hospital grounds.

This is an isolated example of the successful employment of Fowler's Solution in this happily rare disease, but its effects on this individual case were so rapid and remarkable as to entitle it to a trial before resorting *ex cathedra* to surgery for its relief.

Institutes and Practice of Medicine.

Remarks on Cholera.

BY A. P. HAYNE, M. D., SAN FRANCISCO.

The reappearance of Asiatic Cholera as an epidemic in several of our southwestern cities, and the well known tendency of this fatal disease to follow an onward and progressive course in its devastating career, may well excite the interest and attract the attention, not only of the public at large, but more especially of the medical profession of our country.

The vital interests of the great centres of our population

in the Eastern and Atlantic States are no less deeply involved than those of this—the western limit of our continent. In no disease is the truth of the aphorism that, "forewarned is forearmed," more literally correct, than in this fearful scourge; and if it be the part of wisdom, it should no less be the duty of the guardians of a people's welfare, to be prepared for any and every emergency.

It is with this motive in view, that we have thought it might not be entirely out of place to present to our readers a brief summary of a somewhat varied personal experience, in connection with this subject; and in a plain and practical manner, to give the results of our observation in regard to the prevention and treatment of a disease which, as has been well said, requires the prompt and vigorous employment "of the whole artillery of medicine" to baffle or oppose.

Before doing so, however, it may not be uninteresting to give a condensed history of the origin and progress of this epidemic, from the time it first attracted special attention to the present day.

"Endemic for centuries," says a recent authority from whom we quote, "in the marshy regions of India, it suddenly, in 1817, broke away from its usual confines, and appeared in Calcutta, where it raged for more than a year." Its devastating march was thence extended northward to Nepaul, and southward to Madras, Ceylon and Malacca. Two years later we find it extending to the Burmese Empire, until in 1820 it reached Bombay. Here it destroyed no less than 150,000 persons. From Bombay it passed rapidly to the Island of Madagascar and the eastern coast of Africa, and nearly simultaneously, also appeared in Borneo, China and the Philippine Islands.

In the year 1821 it followed the course of the great rivers of Persia, Arabia and Asia Minor, and after an apparent lull, reappeared two years later and devastated Central Asia. In 1829 it invaded the Russian Empire, and in 1830 nearly depopulated Moscow. In 1831 it made its appearance in Central Europe, and visited nearly all of the large and populous cities. The following year it reached Lon-

don and Edinburgh, and on the 8th of June of the same year (1832) made its first appearance on this side of the Atlantic at Quebec, and on the 21st of the same month broke out in New York.

From this it spread rapidly to most of the chief cities of the Atlantic and Western States. Two years later it reappeared in this country, although not as severely as on its former visit, and three times subsequently, viz: in 1835, '36 and '37, revisited different parts of Europe. In 1836 and 1849 it again crossed the Atlantic, and appeared in most of the south and southwestern States, and from that time to the present has not again been seen in an epidemic form.

From the statistics of these several visitations, it appears that upwards of 20,000 persons perished in Great Britain, the rate of mortality being 38.05 per cent. of those attacked. In Paris alone 18,000 perished—the mortality being at the rate of 49 per cent.

In Russia a still more fearful result marked its visitation, the rate of mortality being 58.06 per cent., the disease raging in midwinter at St. Petersburg.

In this country the average rate of mortality was from 40 to 50 per cent.

From this brief and hurried summary, it will be seen that the general course of the disease was from the Eastern to the Western world, and that not even the broad Atlantic presented a barrier to its slow but steady progress. Neither cold nor heat, nor mountain nor forest, seemed to check it in its march of devastation.

Let us now turn to its more immediate and closer inspection. Unlike most other epidemics, cholera has always given warning of its approach. In every invasion, it has been preceded by what might be termed its "advance guard," viz.: a prevalence of diarrhœa, or cholera morbus. Unlike yellow fever and small-pox, we are, as it were, put on our guard, and warned that the enemy is approaching, and it is precisely at this time—be the interval longer or shorter—that it becomes our duty to redouble those precautions which experience has taught us can modify its virulence, if not check its approach.

It is scarcely necessary to say what these precautionary measures are. Every medical man knows that a rigid enforcement of the laws of hygiene, and the golden rule of "temperance, cleanliness and courage," are the only weapons in whose safety we can trust. Plain and wholesome food, bodily cleanliness, and a tranquil mind, will, even in the midst of its ravages, prove a breast-plate of defense, more than sufficient to resist the impending danger.

If to these be added a proper attention to the purification and disinfection of public and private sewers and sinks—the removal of all filth and garbage from the public highways and private dwellings—and an entire exclusion of all deleterious articles of food (such as shell-fish, green or over ripe fruit, tainted or diseased meat, and unwholesome vegetables) from our markets, and a free and liberal use of pure water, in cleansing the impurities of a large city—together with a judicious use of such other preventives as every Board or Health and Health Officer is familiar with—we have a barrier behind which we may safely defy even an adversary as terrible as cholera itself.

In a city like ours, the two great dangers to be especially apprehended—dangers which we fear even the pure ocean winds of our highly favored climate cannot dispel—are to be found in the over-crowding and filth of our Chinese quarter, and the intemperance and over-excitement of our white population.

To the drunkard and the debauchee, cholera is a fatal foe. Fully ninety per cent. of those addicted to the immoderate use of ardent spirits die, and the same ratio almost applies to other and no less distinctive excesses. As cleanliness has been said to be next to godliness, so temperance, in its broadest sense, is the hand-maid of safety in the midst of this pestilence. No less pernicious and fatal is the foul atmosphere engendered in some of those "black-holes of Asiatic serfdom" with which the most populous part of our city abounds. Twenty or thirty human beings crowded into the space of one small room, breathing the same atmosphere over and over again, and impregnating it still more with the emanations of their un-

washed bodies, must present an inviting spot to a disease like that of which we are speaking.

It would carry us far beyond the limit of the space assigned us to attempt even a passing notice of the true pathology of this disease. On one point only can there be no difference of opinion at the present time, viz.: that cholera is not, properly speaking, contagious.

That it depends upon a subtle poison (be it vegetable or animalcular), which is transmissible in the atmosphere, may also be taken as a fact sufficiently established to be no longer doubted. What that poison really is, we can only guess. These are points, however, which are immaterial to our present purpose.

It would be no less tedious to discuss the many and varied modes of treatment which have at different times been proposed and abandoned. The most that can be attempted in this direction, is to embody the results of such as have been tried by the test of experience, and select that which has proved most beneficial.

With this view we propose to conclude our remarks with a brief outline of the plan of treatment, which, after careful experiments, was found attended with the least mortality in hospital as well as private practice, in the epidemic of 1849, and in submitting it to our medical brethren, we do so with all due deference to their better judgment.

In the following plan, then, will be found a blending or combination of several which have at different times been in vogue.

In the premonitory stage, ushered in by laxity of the bowels, with or without cramps, we gave—

℞ Pulv. Camph.. ..... ʒ jj
Hoffman's Anodyne..... ℥ jj

S. A teaspoonful every half hour, in a little mint water.

If the laxity of the bowels continued, or cramps came on or increased, we gave—

℞ Hydrarg. Chlor. Mit.....gr. xxx
Pulv. Opii.....gr. vj
Pulv. Capsici .....gr. x

Divided into vj pills or powders. S. One to be taken after each evacuation.

If not relieved, or if the violence of the disease seemed to be increasing, we ordered—

℞ Pulv. Opii.... .....gr. vj
Pulv. Camph..... gr. xjj
Plumbi Acet.....gr. xx

Divided into vj pills or powders. S. One to be taken after each evacuation.

Should these not check the complaint, give—

℞ Plumbi Acet.....ʒ j
Pulv. Opii.....gr. xjj

Divided into xij pills or powders. S. One after each evacuation.

Should the case have passed into a state of collapse, or the evacuations have become very frequent and rice-watery, we gave—

℞ Ammon. Carb .....ʒ jj
Spr. Vini Gallici .....℥ jj
Aquæ Menth. Pip.....℥ jj

S. A small wine glass every ten or fifteen minutes, and let the patient be rubbed with the following liniment:

℞ Pulv. Capsici..... .....℥ jjj
Sinapis Pulv..... .....℥ jss
Camph. Pulv.....℥ ss
Cantharidis Pulv.....ʒ jjj
Alcohol.....O j

Digest one day and add Spr. Terebinth. 6 ounces.

Rub the patient with this as long as the surface of the body is cold or clammy; also use hot bottles of water, or bricks or bags of salt, and apply mustard and pepper plasters to the abdomen and extremities.

As an injection, where the evacuations are very frequent, use—

℞ Liq. Plumbi Acet..... .....ʒ j
Tinct. Catechu.....ʒ jj
Tinct. Opii.....℥ ss
Aquæ.....O ss

Divide into four parts; and, as a stimulating injection in collapse after the evacuations are checked—

℞ Ol. Terebinth.....℥ j
Pulv. Camph.....gr. xx
Spr. Ammonia..... .....ʒ jj
White of Egg.....(One)
Ol Olivæ.....℥ j

A general rule in all cases is, that the patient should lie down at once, even in a mild attack, and be covered up warmly, and another and no less important one is, never to cease trying these or other remedies as long as a sign of life remains. These, with the prompt removal of each evacuation, and free ventilation, constituted the plan which we found most successful. Some of the doses prescribed may at first sight appear large, but it should be remembered that cholera is a fearful foe, and is to be met with a prompt and heroic treatment.

(Clinic of Dr. C. M. BATES, City and County Hospital.)

Calcareous Degeneration of Inner Coat of Arteries; Cerebral Extravasation; Death; Autopsy.

REPORTED BY W. H. MAYS.

J. COLLYCOTT, Englishman, aged 45, admitted into City and County Hospital February, 1873. Had been for some six or seven months previously subject to "fits," when he would fall suddenly to the ground, losing consciousness for a few seconds. He appeared much emaciated and feverish, and complained of dizziness in the head, with occasional bleeding at the nose. On feeling pulse, a calcareous condition of the radial arteries was evidenced, they being cord-like and knotty, resisting pressure. Heart's action rapid and thumping; systolic *bruit* at base. A supporting treatment was adopted; nutritious diet and chalybeate tonics. The symptoms rapidly exacerbated, death supervening fourteen days after admission. Autopsy twenty hours after death. Lungs much congested. Heart considerably hypertrophied. Aorta atheromatous. On removal of the brain, the internal carotids were found to be completely lined with calcareous plates, emerging from the carotid canals as solid tubes. Patches of extravasated blood of a dark, almost black color, were found on the surface of the cerebral hemispheres.

This case may be considerated as typical of one of the *sequelæ* following upon inflammation of the inner wall of the arteries. Arteritis may result, on the one hand, in aneurism, from breaking down of the inner coat; or, as in this instance, in atheroma, the atheromatous deposits slowly assuming a granular consistence, and calcifying by the accumulation of lime salts. How far heart disease is thus caused by arteritis is a question deserving of more attention than it has yet received. Our State is credited with more than its share of cardiac affections, and to account for the fact, her medical literature is fertile in hypotheses which certainly bear witness to the zeal and ingenuity of their propounders. The dryness of the climate; the rarity of the atmosphere, its electricity, its hyper-tonicity; the cold nights following upon hot days, in the interior valleys, when a variation of 50° or 60° is frequent; the excitement of gold-hunting; the effects of violent exercise on men unused to labor; the exposure to cold and wet in mining; enforced abstinence from women; the mania for speculation; gambling; stimulism—all these have been offered as reasons why the Californian's heart is more prone to disorder than that of his Eastern neighbor.

But is it, after all, the heart that should bear the blame, and to which attention and medication should be directed? From frequent examinations *post mortem* at the City and County Hospital of cases bearing upon this question, I am inclined to think that cardiac affection is generally but a secondary complication consequent upon a diseased state of the arteries. It is manifest that if the arteries be obstructed by atheromatous or calcareous deposit, their contractility impaired, their calibre diminished, an augmented *vis a tergo*, an extra head of steam, so to speak, is required to force the blood through them; and in its efforts to meet this demand, the heart falls a prey to hypertrophy, dilatation, and a train of concomitant evils.

In shifting the onus of the initial pathological action from the heart to the lining membrane of the blood-ducts, we may expect at any rate one benefit to accrue. It may yet remain for some medical Livingstone to discover the pre-

disposing cause of the proneness of this tissue to degeneration, its characteristics, its possible cure. But it will at least relieve the heart in some measure from the pitfall of mischievous medication, by which it is so ruthlessly beset under what is called the "expectant" treatment. The principle of this plan is to "treat symptoms as they arise;" if the heart is found to be beating rapidly, to choke it off with a powerful depressant. That indefatigable little organ is doing its best to furnish the body with the life-giving fluid; is laboring against long odds to keep the machine running; and to administer veratrum viride or aconite at such a moment is simply imitating Mark Twain's treatment of his disordered watch, when he "hung a money-wrench on its safety-valve." Accelerated action of the heart is as necessary a consequence of partly occluded arteries as accelerated breathing of obstructed bronchi. Both are alike preservative measures, instituted with a view to the proper maintenance of the circulation under extraordinary circumstances.

Studies of the Materia Medica of the Chinese.

Extract from a Report on the Investigation of M. M. Leon Soubeiran and Dabry de Thiersant, made to l'Acadamie de Medecine: by M. A. Gubler.

TRANSLATED BY CHARLES C. FREDIGKE.

In their exposition, our fellow-countrymen have adopted the natural classification. The products of the materia medica are divided into minerals, animals and vegetables, and the two latter groups are subdivided into families. Each substance is designated by its vulgar name in Chinese, and by its corresponding scientific denominations. Then follow accounts concerning their properties, their use, and their mode of application. It is evident that in order to ascertain their identity and fix their synonyms, our authors had to apply themselves to a minute study in comparing the different products, and to bibliographical researches, always difficult, and rendered more laborious yet by the obscurity of texts.

What strikes one at first view, on looking over, at a

glance, this vast description, is that it reproduces in its ensemble, and even in a great number of its details, the features we are accustomed to meet with in the materiæ medicæ of Europe. Here we see figure, with astonishment, the greater part of the substances used among ourselves, and it is, moreover, not without some surprise to find a similarity in the indications, and, to a certain point, the theoretical ideas which direct their employment. In looking over the work of M. M. Leon Soubeiran and Dabry de Thiersant, we think to see the materia medica of Geoffroy or some one of those old treatises in which an infant science, little assured in itself, does not disdain to receive, notwithstanding its observations or its prejudices, the errors of the charlatans of the period and of popular superstitions.

We will surprise nobody, then, when we say that the idea of specifics, correlative with that of ontology, seems to have governed the medical practice in China, as it has done lately in Europe. One substance is endowed with a virtue essentially anti-rheumatic or anti-spasmodic; another with a power inexplicable, irreducible to other properties more simple, to cure directly, *proprio motu*, phthisis, syphilis, or rabies.

Besides, the Chinese are persuaded, as we have been during the middle ages, that Providence, little trusting to our instinctive faculties, wished to address itself to our intelligence by teaching us to distinguish injurious things from those which are useful. According to this conception, Nature would have taken care to stigmatize the poisons and adorn the remedies with marks, calling immediately to man's mind the services which he has a right to expect from them. This is what is called the *doctrine of signs*. The belief in this singular dogma reveals itself at each step, so to say, throughout the Chinese materia medica.

It is thus that the fire-fly is recommended against the affections of the visual organs; that a species of madder (*Rubia Munjista*), the root of which is red, is thought to promote the menstrual flow; that *Polygonum tinctorium*, which furnishes indigo, is reputed as efficacious against the petechial fever; that the reniform fruit of *kadsura chinensis* has aphrodisial properties, and that *ginseng*, the bifurcated root of which resembles a man's thigh, possesses the power of restituting to invalids and old persons absent vigor and virility. Considerations of the same kind have doubtless caused the reputation of *Cordiceps sincensis* as an excitant of the genital organs; that of *Bidens parviflora* as an infallible means to make the finger nails grow; or that of *Vitex incisa* to increase the growth of the beard; finally that of *Apocynum*

juventus as a remedy to preserve youth. And if the horns of the deer are exposed in China in such elegant works, enjoying so much favor with the crowd of the surfeited upper-tendom, is not their distinction due to the courage and the generous ardor of which that fine animal gives proof at the time of heat?

These are strange illusions, certainly; but they deserve indulgence, especially on the part of people whose ancestors entertained them. When we believed in lungwort to cure phthisis, in gromwell (lithospernum officinale) to drive away gravel, and in the carrot to dissipate jaundice, then modesty becomes an indispensable virtue.

In addition to this the Chinese show themselves, in other points, of genuine practical sense, and even scientific tendencies, on account of which they ought to be praised, and which should pardon certain of their errors. For instance, we see in their materia medica astringent substances, either vegetable (oak gall-nuts, Chinese galls, etc.), or mineral (alum, acetate and sulphate of iron, salts of lead, silver, etc.), used as bitters to fortify, confine (to restrain, as, for instance, the bowels), drive away the fever (*Salix babylonica*, *Populus tremula*, *Dichroa febrifuga*), arrest profuse perspiration, stop atonic diarrhœa, spermatorrhœa. Also the aromatics, the essential oils, simple or sulphuretted, the balsamics used as diffusive stimulants, febrifuges, anti-spasmodics, and to check catarrhs. Such are the remedies furnished by the Labiatae, the Umbeliferae and the aromatic Compositae, the Myristicaceae and Styracaceae, garlic, santal, *Daphnidium cubeba*, and many others. Wormwood and saffron are considered as emmenagogues, and the abortive power of the ergots of rice and of wheat is perfectly understood.

Chinese medicine employs since time immemorial mercurial preparations against syphilis; arsenic in strumous affections, herpetic, and certain intermittent fevers; iron as a blood renovator. Borax is prescribed against thrush, nitrate of soda as a diuretic; carbonate of lime as an absorbent, and lime liniment in burns.

Ancient authors recommend the ashes of sea-wrack (Fucus vesiculosus) against goitre. The Chinese use, as we do, sulphur, acetate of copper, castor oil, gamboge, aloes and rhubarb, aconite, *Veratrum* and *Colchicum;* camphor, musk, opium, and the Solanaceae. They have sternutatories, sialagogues and anthelmintics analagous to ours; more, they believe to possess as large a number of substances capable to prevent or dissipate drunkenness. (*Betonica*

officinalis, Honenia duicis, Chrysanthemum album, nutmegs, borax), or better, to exert an influence over the lacteal secretion, either to suspend (malted barley) or to increase it (*Silene? Alisma plantago*).

Let us add, and this is not the least remarkable particularity, that surgical anæsthesis, general or local, has been very anciently used in China. The great surgeon Houa-To —who brought into vogue hydro-therapeutics—used already a species of *atropa*, described by the Pen Tsao, and which produced an insensibility sufficient to permit grave operations on the abdomen. *Datura alba* acts in the same way. Besides *azalea procumbens*, which is often ranked with henbane for its narcotic quality, when mixed with powdered aconite root, can produce a local anæsthesis, which may be of use in small operations.

It would be fastidious to prolong still more this parallel; for the examples cited amply suffice to show the general similarity of the Chinese materia medica with those of Europe. Is it yet needed to dwell upon the necessary differences? We do not think so; but would believe to have accomplished only a part of our labor, at any rate, would have realized but half our design, if we would not impart to our colleagues our observations on some new facts, which attracted our attention, and on medical doctrines the relative explanations of which, as to each substance, visibly bear the imprint.—*The Pharmacist.*

Chloral in the Treatment of Tetanus.

Mr. Caruthers, House-Surgeon to the General Infirmary, Northampton, states (*British Medical Journal,* April 26, 1873) that he has had several cases of tetanus under his observation during the last four years, and, amongst the various remedies employed, not one has given so much relief to the patient as chloral. Calabar bean reduces the spasm when it is injected; its action, however, is only temporary. There has been one case of recovery under its use, but lately it has not acted satisfactorily. Chloral not only relaxes the spasm, but induces sleep (a powerful aid towards recovery); and during its use he has never seen trismus or dysphagia ever become severe, even in fatal cases. We may, therefore, safely depend, he says, upon relieving two of the most distressing symptoms, even if we do not save life, by administration of this remedy.

International Hygiene—The Protection of Europe from Cholera and Plague.

Towards the close of 1870 an outbreak of plague occurred in that portion of Persian Kurdistan which lies to the south of Lake Urumiah, between the rivers of Jagathu and Tatawa. This district is wild and mountainous, inhabited by fierce pastoral tribes, and except cartographically to scholars, who have traced across it the route of Alexander the Great on his way to Northern Ecbatana, it is little known. The outbreak of plague, although confined within a comparatively small area, was very fatal. It followed close upon the great drought which led to the horrible famine of 1871 and 1872 in Persia, but the infected districts appear to have suffered little, if at all, from that calamity. It was accompanied by a fatal epizootic among sheep and cattle, or these evils preceded it; and ergotism had been more or less prevalent before plague showed itself. Astounding filthiness of domestic surroundings is the normal condition of Kurdish homes; but it is noted that the infected villages were not formed, as common in Kurdistan, of houses grouped against each other, but that for the most part the houses in this district stand well apart, and are situated on high ground. Some of the earliest infected places, however, were situated amidst marshy rice-fields. The determining cause of the outbreak is a mystery, but a Transcaucasian physician, who visited the locality, avers that it followed upon the opening of an old plague-pit, in which the dead of the great plague that visited the district forty years ago had been buried. The evidence of this is, however, of the weakest. The plague extended to the frontier town of Bana, and seriously alarmed the Turkish Government for the safety of its provinces in Asia Minor. Actuated by this alarm, the Sublime Porte has appealed to other European Powers to unite with it in obtaining more effectual co-operation from Persia in securing the frontier from the invasion of the pestilence, and to obtain fuller knowledge of the internal sanitary state of Persia. It is understood that a mixed Sanitary Commission will be appointed by the different Powers, with the concurrence of Persia, and that to this Commission will be submitted, at the suggestion of England, in addition to the question of plague, the further question of the possible danger to Europe of the introduction of cholera by the quicker and more direct route of traffic opened between Persia and Russia through Transcaucasia to Poti, and thence by steamer to the ports on the Black Sea—a route to which attention was first directed by Mr. Netten Radcliffe last year, in connection with the outbreak of cholera in South Russia

in 1869. Whatever the practical result of the Commission's work may be, we may look at least for its bringing to light much important information of the little known movements of cholera in Transcaucasia and Northern Persia, and of plague in Persia.—*The Practitioner.*

Treatment of Diseases of the Bladder by Urine.

Dr. Clemens, a practitioner of Frankfort, well known from his numerous communications to the medical journals, in No. 7 of the *Deutsche Klinick* has an interesting paper on "The Treatment of Chronic Diseases of the Bladder by the injection of Tepid Normal Urine." The distress arising from chronic catarrh of the bladder, whether produced by abnormal urine, gravel, stone, etc., and the difficulty of effectually treating it, are, he observes, known to most practitioners. For many years past he has been treating these cases with various forms of injection, or merely by washing the bladder out with lukewarm water, and in many instances he has obtained much alleviation of suffering, and sometimes a curative result. About four years since, in a very bad case of disease of the bladder, in which this organ had been for months only in contact with decomposed and stinking urine, the idea occurred to him that advantage might accrue from introducing into it urine with its normal proportion of uric acid. The experiment succeeded so well in this and some other cases that he became convinced that the urine in question formed a better material than the most esteemed injections. The bladder having been completely emptied by the catheter, from six to eight ounces of lukewarm distilled water are thrown in, and retained for about five minutes. After this has been removed, some tepid water is again slowly injected through a large injecting syringe, and after some minutes is removed. A young and healthy individual now passes urine into the syringe, which has been previously raised in warm water to a temperature of 25 deg. R., and this is then immediately injected into the bladder, and left in for a longer or shorter time. The impression made by this normal, blood-warm urine of a young and strong man—the temperature of which is generally higher than that which has issued from the diseased bladder—is sometimes in the highest degree favorable; so that in one case a single injection sufficed to relieve a severe spasm of the bladder. The injection may be employed twice, and in bad cases thrice, daily, and a most beneficial influence is exerted on the walls of the organ. The urine of healthy boys from ten to fourteen years of age may be employed alternately with that of adults, with excellent effect.—*Medical Times and Gazette.*

The Treatment of Whooping-Cough with Quinine.

Dr. Dawson (*American Journal of Obstetrics*) contributes an article in praise of quinine in pertussis, thus corroborating the statements of Professor Binz of Bonn. Professor Binz states that good results can only be obtained with quinine by strictly observing the following conditions: "It should be given in solution; the dose should not be too small, and should not be administered in a vehicle that will prevent it from coming in contact with the mucous membrane in its passage through the pharynx." Letzerich thinks the disease is due to the growth of a fungus in the air-passage which quinine destroys. Dr. Dawson gives cases treated by him, and enjoins the following rules for the administration of the drug:

1. Give the quinine dissolved by acid in pure water only. For children under three years from gr. v to gr. viij, and for older children and adults from gr. x to gr. xij to the ounce.
2. Give not less than a teaspoonful *every single*, or at the longest every two hours during the day, and whenever the cough comes on at night.
3. Give nothing afterwards to destroy the taste or to wash out the mouth.
4. Continue giving it, notwithstanding the first doses may be vomited.
5. Be sure that the quinine is pure and thoroughly dissolved.

Veratrum Viride in Acute Rheumatism.

Heuser (*Allg. Med. Centralzeit*, January, 1873) considers veratrum viride to be superior to any other remedy in acute rheumatism. He uses a mixture of one part of the tincture with four of rectified spirit and five of water. Three to five drops of this mixture are given every two hours, and the joints kept warmly rolled up. The author has also observed the best effects result from its use in pleurisy, and considers that it will supersede digitalis in pneumonia and bronchitis. He warns against the use of large doses, which impair the remedial action of the drug. Five drops of the tincture reduced the pulse rate to one half, and produced vomiting, weakness, cold sweats, a feeling of tearing and numbness in the extremities, and muscæ volintantes.—*London Med. Record*, March 19, 1873.

Gynecology and Diseases of Children.

Improvement of the Gas-jet Cautery.

BY A. P. WHITTELLS.

Like many other valuable and useful inventions, the gas-jet cautery has been discarded from use as impracticable and unmanageable, on account of a fault which it but required the ingenuity of some inventive genius to overcome. The gas-jet cautery was introduced to the profession by Dr. Acosta, of Paris. It consists of a small metallic tube, attached to a bone or ivory handle, and connected by a flexible tube to the nearest gas-burner, when in use; the supply of gas being regulated by a stop-cock at the junction of the handle and metallic tube. The gas escapes by a minute orifice at the end of the tube, and when lit forms a narrow jet of flame, the length of which may be regulated by the supply of gas.

It is granted for it, that it would be of great use if it could be safely handled, without fear of cauterizing other than the parts so intended to be. Thomas, in his "Diseases of Women," speaks highly of its efficacy in the treatment of some diseases of the cervix uteri, such as the cauliflower excrescences of cancer, where a powerful escharotic is required. He says: "It possesses certain advantages over other methods, but is infinitely less manageable that the white hot iron."

Now, if the above objection can be removed it will place in the hands of the surgeon an easy and rapid means of using the actual (fire) cautery, when it is required to make a deep impression or total destruction of tissue, which, with this instrument, can be carried to an unlimited extent, and causing less pain than by the use of the hot iron, which will retain a white heat but for a very short time; and if the effect of the first application (of the iron) be insufficient, it becomes necessary to reheat and re-apply it, which occupies much time and trouble.

The improvement in the gas-jet cautery consists in the addition of a small piece of platinized carbon, prepared by a peculiar process, and which possesses the property of lighting ordinary coal-gas when retained in contact with it for a few moments. This is placed within the jet of gas as it issues from the tip of the instrument, and so arranged that the moment the gas is lighted it may be retracted from the direct line of the jet by means of a small lever extending to the handle of the instrument. By this means, the jet may be lighted or extinguished without it being necessary to remove it from its position in a deep cavity, as the rectum or vagina.

Treatment of Cancer of the Uterus by Ergot and Escharotics.

BY ALEXANDER MILNE, L. R. C. P., EDINBURGH. (READ BEFORE THE OBSTETRICAL SOCIETY OF EDINBURGH.)

Dr. Milne premised that under the term cancer he included, along with scirrhus and medulary (the latter the most common in uterine cases), the epithelial variety—that is to say, the cauliflower excrescence of Dr. John Clarke, the cancroid of Virchow, and the epidermic cancer of Rokitansky; for this reason, that though it differed in physical character from encephaloid in its earlier stages (a difference due simply to the anatomical nature of the part affected), yet, sooner or later, it merged into the same. He also remarked preliminarily that the uterus presented in some respects a more favorable field for successful treatment than various other organs, forasmuch as, firstly, the disease was longer limited to and localized in the womb; that was to say, in a large per centage of the cases the abnormal condition—the morbid growth—was confined to the uteras, there being no cancerous deposit in other parts or organs of the body. Secondly, in not a few of the uterine cases the epithelial form existed, and that was a variety which for a considerable time was limited to the os, or to the more superficial portion of the cervix.

Dr. Milne also, before entering on the treatment, referred to the modern views entertained respecting the origin of cancer. These, he said, had changed greatly

from the old opinion, which was to the effect that the tumor was the offspring of a specific blood-poison or taint, and it was now pretty widely believed that cancer was more of a local than a constitutional disease, whether parasitical or traumatical being as yet an unsettled question. It was not exactly denied that there was a constitutional proclivity, "a diathesis hovering over the organism," as Broca phrased it; but it was maintained that there was a primary local tumor, and that when extention or multiplication occurred, it was owing to the cancer juice—the morbid cells—traveling along the vascular and lymphatic system, or the connective-tissue spaces. This view was held by Virchow and other eminent observers. The author indicated his adhesion to this view, and said that he was led to adopt it from considerations such as that of non-recurrence after the extirpation of the uterus (an operation not likely, however, to become established like ovariotomy) and the demonstrable spread of the malady in the manner aforementioned from the primary or parent growth.

Coming now to treatment, he briefly reviewed that ordinarily obtaining, and said that, when anything more than a kind of do-nothingism (which latter it frequently was, owing to a history of failure and fruitlessness), it had veered between the constitutional and the local, according to the pathological bias of the practitioner. As regards the constitutional treatment, this had consisted of diverse empirical remedies, having a supposed curative influence on a hypothetical blood-taint, such as hydrastes, cundurango, etc. No good curative result had been effected by these, which failure betokened either that we have not succeeded in securing the right remedy, or more probably that the disease could not be successfully combated by constitutional means. Dr. Milne inclined to this latter explanation, for this reason, that had cancer been the offspring and manifestation of a blood disease, as glandular enlargements were of struma and syphilis, we should very probably have discovered before this time a remedy fitted to cope successfully with it, just as quinine cures ague, and the iodide of potassium eliminates or neutralizes the syphilitic poison. Now as regards the usual treatment, this had consisted (that is, when not simply detergent and antiseptic) of the removal of the morbid mass by means of excision—the knife, scissors, écraseur, or galvano-caustic wire being variously employed —or by caustics. As regards excision, the history of it was that of almost universal failure. The disease had returned in an overwhelming proportion of the cases, and cut off the patient more or less speedily. Even in cauliflower

excrescence, where the growth was more superficial in the first instance, and where extension was more tardy, the results had been far from satisfactory, return taking place in many instances, and medullary cancer supervening and destroying the patient. This want of success might possibly evidence a blood-taint, but the author preferred viewing it simply as attesting an imperfect separation of the morbid growth. That was to say, that the knife or écraseur, etc., instead of traversing healthy tissue, had only cut through the morbid mass, and left a portion of it behind. The term reproduction was then a misnomer, the apparently fresh growth being only an expansion of that which was left behind. In excising, then, we can never be certain of removing the entire morbid mass. We may draw down the cervix and bring light to bear on it, and descry what we fondly imagine to be healthy structure beyond, affording verge enough, too, for justifiable excision; but what if, beyond our ken, imbedded within what appears to be normal and healthy structure, there lurk the morbid cells that shall speedily enkindle a fresh growth—a so-called reproduction? This Dr. M. believed to be usually the case when excision failed to confer permanent good, and such trustworthy pathologists as Van der Kolk had long ago pointed out that vagrant cancer cells were frequently to be found in the *areolæ* of the connective tissue at some distance from the parent growth. Nodules of cancer, for example, had been found in the lower lobes of the lungs, which had evidently been transmitted from a malignant tumor in the trachea. The naked eye is quite incapable of discriminating healthy from unhealthy tissue here, and the microscope alone can enable one to do so. Excision, then, had always this drawback, that even in the most favorable looking cases, one might leave behind those minute and microscopic cells, the germs of fresh mischief—the nucleus of a growth that would more or less speedily prove fatal. It was contended also that excision hastened a fresh development of the disease. When a cure is not effected, growth goes on more rapidly than before, in numerous instances. Just as with the polypes, the more you cut the faster does growth and multiplication ensue. Of course there were exceptions to this, where a fatal issue was retarded. Lastly, in the case of excision, erysipelas, surgical fever, and pyemia were somewhat prone to follow. Hemorrhage, collapse, and peritonitis were also probable, although these were now, owing to modern appliances and resources, less common.

Dr. Milne next referred to the caustic plan of treatment. He said that one of the foremost advantages of the method

was the lesser tendency to a recurrence. Zandolphi and others had amply attested this. As regards the cause of this success, he thought it was owing to the caustic possessing, in addition to its corrosive property, an alterative and eclectic influence. Nitric acid and nitrate of silver are beneficial in chancre: they destroy the morbid part, and induce a healing sore. In like manner it is reasonable to suppose that certain powerful caustics may operate similarly in the case of a cancerous ulcer, not only severing the morbid part, but promoting a healthy cicatrix behind. Then they may penetrate and search out and destroy those deeper morbid cells which are removed some way from the parent tumor and insure its recurrence. It was far from contended, even if certain kinds of caustics possessed the eclectic power, that they would invariably succeed in effecting a cure; for just as there had been recurrence after the spontaneous sphacelus of a malignant tumor, so would there be after the destruction effected by oscharotics; but it was maintained that recurrence was rarer than by the method of excision. The caustics recommended by Dr. Milne were the chloride of zinc, the dried sulphate of zinc, and the nitrate of copper; and the cases suitable were all those of encephaloid, carcinoma, and epithelioma, where the cervix only was involved. Although one would not perform excision unless there was only a small portion of the cervix attacked by the growth (and indeed many surgeons refuse to operate unless in cauliflower excresence of limited extent), the escharotic method might be resorted to, and with benefit, when the disease was much more extensive, and for the following reasons: First, the caustic does not excite peritonitis like the knife, while it corrodes its way upwards beyond the remotest part practicable by excision. Secondly, there is no dragging down of the uterus required, with its risks of collapse, etc. As regards the mode of application of the caustics, the dried sulphate of zinc was to be first used, being applied to the cervix pretty freely through the speculum, the vagina being immediately thereafter plugged with cotton wool tipped at the uterine end with a little olive oil. This was to be applied until a slough came away, after which the cervix was to be injected with a saturated solution of nitrate of copper. This was done in order to attack any morbid cells lying beyond the sore from which the slough had separated. We might witness a healthy-looking sore after separation of the slough, but we were not to fold our arms and lapse into an easy contentment; for underneath the pretty-looking surface there might lurk the microscopic cells—sure guarantee of a fresh growth. No caustic

seemed better adapted to elect, attack and destroy these than the nitrate of copper.

In reference to the function of ergot given internally in cancer, Dr. Milne observed that it had usually been administered, and with benefit, as a hemostatic; but he believed it had another effect—it led to the atrophy of the uterus. This was an original observation which he claimed to have been the first to make. If it had the effect, and the author was convinced that it had, then its therapeutic power was greater than had been previously imagined, and could not but be viewed as of great value in uterine cancer. It was not only important to diminish the afflux of blood to the uterus, and thereby combat uterine congestion—a condition present in malignant disease—but it was no less so to induce uterine atrophy. This atrophy was natural after the change of life, at which period cancer advanced more slowly; and if we could antedate it, it would be reasonable to suppose that the progress of the dire disease would be retarded. In point of fact' he had found such to be the case. The ergot, he said, should be given for a protracted period, intermitting it occasionally, if any of the bad results named in books appeared. He had never found such, however. Dr. Milne, in conclusion, related his experience of the ergot and escharotic form of treatment. He had cured two cases of cauliflower excrescence, and in three medullary ones he had retarded the disease at least. In one of these he thought a permanent cure would be effected, while as regards the others there had been diminution of pain, of bleeding, and of offensive discharge. These latter, moreover, would fail to kill so soon as under the old plan of treatment. Even though this latter result, viz.: a postponing of the period of dissolution, was all that could be achieved, it was yet worthy of our most devoted effort. The great drawback in uterine cancer was the late period at which it came under professional notice. Usually the whole servix and contiguous parts were involved, and every form of treatment was thus debarred. But let it be seen when limited to a part only of the cervix, and there was every hope that the ergot and caustic treatment would frequently cure, and often mitigate the more distressing symptoms while postponing death.

Reconciling an Impossibility.

VOLTAIRE'S definition of a physician is: "An unfortunate gentleman expected every day to perform a miracle; namely, to reconcile health with intemperance."

Treatment of Disease in Children.

BY EUSTACE SMITH, M. D., LONDON, PHYSICIAN TO HIS MAJESTY THE KING OF THE BELGIANS.

There it one class of remedies which is of singular value in the treatment of the diseases of young children, viz: The alkalies. In all children (in infants especially) there is constant tendency to an acid fermentation of their food. This arises partly from the nature of their diet, into which milk and farinaceous matters enter so largely; partly from the peculiar activity of their mucuous glands, which pour out an alkaline secretion in such large quantities. An excess of farinaceous food, therefore, soon begins to ferment, and an acid is generated, which stimulates the mucous membrane to further secretion. In all chronic diseases, and in many of the acute disorders, this sour condition of the stomach and bowels is present. Alkalies are therefore useful—firstly, in neutralizing the acid products of this fermentation; and secondly, in checking the too abundant secretion from the mucous glands. A few grains of soda or potash, given an hour or two after taking food, will quickly remedy this derangement and remove the distressing symptoms which arise from it. In the chronic diseases, indeed, attention to this point is of especial importance; for by placing the stomach and bowels in a healthy state, and insuring a proper digestion of food, we put the child in a fair way of recovery, and prepare the way for the administration of tonic and strengthening medicines, by which his restoration to health is to be brought about.

In prescribing for infants, an aromatic should always be included in the mixture. The aromatics are useful, not only for their flavoring properties, but also for their value in all those cases of abdominal derangement where flatulence, pain and spasm, resulting from vitiated secretions and undigested food, are present to increase the discomfort of the patient. Such dyspeptic phenomena are usually relieved rapidly by the use of these agents; and aniseed, cinnamon, caraway seed, or even tincture of capicum in minute doses, will be found important additions to the prescription in all cases where alkalies are required.

In prescribing for children the proper dose of a medicine cannot always be calculated according to the age of the child, and does not in all cases bear the same proportion to the quantity suitable for an adult. For certain drugs children show a remarkable tolerance, while to the action of others they show as remarkable a susceptiblity. Thus,

opium, it is well known, acts upon a child more powerfully than would be expected, judging from the mere difference of age. It should, therefore, be given to infants with a certain caution, especially if the child be enfeebled by disease. It is, however, a medicine which is of especial value in the treatment of the diseases of infancy, and may be given without fear if care be taken not to repeat the dose too frequently. Belladonna, on the contrary, can be taken by children in large quantities. A child of two or three years old will bear without inconvenience a dose which in an adult might produce very uncomfortable symptoms. Lobelia, again, is a remedy which is very well borne by children. Dr. Ringer has given it to "very young children" in doses of five minims every hour, and in no case has he noticed any ill effects to follow its administration. Arsenic should be given to children over five years in the same dose as that used to adults, and infants of a month or two old will take one drop of Fowler's Solution three times a day with great benefit in cases of gastric catarrh. The influence of mercury upon young children deserves remark. It seldom in them produces stomatitis or salivation; but an excess of the drug is not therefore harmless; its influence is seen in the irritation of the alimentary canal which it so often excites, and in the profound anæmia which it induces. The anæmia which is so common a sequence of constitutional syphilis in infants is no doubt often a result of too long-continued mercurial treatment.—*Medical Times and Gazette*, April 12, 1873.

Case of Extra-uterine Pregnancy—Removal of the Foetal Skeleton by Abdominal Incision—Recovery.

Dr. Wm. D. Harper reports the following case: Mrs. I., thirty years old, married five years ago, at which time she was perfectly healthy. Soon after marriage she suffered from an attack of pelvic cellulitis, by which her health was greatly undermined, so that for four years she was more or less confined to her bed. In March, 1871, an abscess ruptured into the vagina, and discharged freely. After this she ceased to menstruate for the first time since her marriage, but on the following month her menstrual flow returned, accompanied with profuse vomiting. In April she discovered a tumor the size of an orange in the left iliac region, which continued to grow. June 11th she was aroused from sleep by a feeling of faintness, and a putrid

discharge, with large quantities of bloody water, took place from the rectum. The abdomen diminished in size, but the tumor could still be plainly marked out, was dull on percussion, and indistinctly fluctuated. A week after this a fœtal temporal bone was removed from the rectum. Hectic fever followed, and for a time the condition of the patient was critical. At the return of each menstrual period great pain was experienced in the cyst, and the bloody offensive discharge again appeared. In October the abdominal wall was opened, which was followed by a puff of offensive gas. On exploring the sac it was found that it had, apparently, no connection with the peritoneal cavity. The different fœtal bones were removed without difficulty until the cranial bones were reached, which were attached to the inner surface of the cyst, and their removal required some delicacy in manipulation. All the parts of the skeleton were found except a scapula, and some of those composing the hands and feet, which were probably discharged at the time when the cyst first ruptured. The patient rallied from the operation, the wound was left open and dressed with a single fold of cloth saturated with a weak solution of carbolic acid. From the second day after the operation to the twentieth, fecal matter was mixed with the dark grumous fluid which was discharged from the abdominal opening. One month after the operation, the wound had entirely closed, and the patient has so completely recovered that she now attends to her household duties.—*Transactions of the Med. Soc. of Virginia, Richmond,* 1873.

Case of Occluded Vagina; Labor at Full Term; Forceps; Resuscitation of a Still-born Child.

The patient, under the care of Dr. Lusk, was a primipara, 21 years old. The labor pains failed to cause the descent of the child's head, and on examination it was found that the vagina was short, and terminated at its upper extremity in a small fossa, just large enough to admit the index finger. At first no opening could be discovered, but by pushing with the finger, a passage was gradually formed, about two inches in length, until the uterine cavity was reached, when the membranes were ruptured. Inasmuch as the woman had suffered greatly while the uterine contractions were feeble in character, after waiting for two hours and finding no further expansion of the cervix, Barnes' dilators were introduced, and sufficient dilatation effected to admit of the application of the forceps, and the delivery of a child

weighing eight pounds. For the resuscitation of the child, the various reflex stimuli were employed, and resort was made in succession to Marshall Hall's, Sylvester's, and B. S. Schultze's ready methods. The latter is thus described:

"The operator seizes the child under the arms, the index finger of each hand in the armpit, the thumbs over the anterior portion of the trunk, the remaining fingers placed along the back, which is turned towards the operator, while the head is steadied between the palms of the hands. As the operator stands up, the child, so held, is allowed to swing between his outspread knees. The tractions thus made in both directions upon the ribs, by the pectoral muscles above, and the abdominal muscles below, produce the widest separation of the ribs, while the weight of the liver causes descent of the diaphragm, and thus inspiration is produced. Next, with extended arms the operator swings the child upward until the breech and legs fall forward toward the abdomen. When the body is thus doubled up, the ribs close together, the diaphragm is pushed upward, and forcible expiration takes place, driving out through the mouth and nostrils great quantities of mucus and fluids (when respiratory movements have taken place previous to birth) from the air-passages. Still keeping the arms extended, the child should be allowed, after a few moments, to swing back between the legs. In this way expiration and inspiration are to be maintained until spontaneous respiration occurs. As the temperature is apt to fall during the swinging movements, warm water should be kept handy, in which occasionally to plunge the child."—*N. Y. Medical Journal.*

Hydrate of Chloral in Obstetrics

Dr. Dujardin-Baumetz has recorded, in the last number of the *Gazette Medicale de Paris*, several cases in which the use of hydrate of chloral was remarkably successful. In the first case (primapara, protracted cephalagia, œdema of legs and eyelids, albumen in urine) a fit of eclampsia supervened two days before the labor, and lasted ten minutes. An enema with one drachm of chloral was administered, and the patient fell asleep. On the day of the accouchement, as a precaution and to avoid a recurrence of the fit, two enemata, with one drachm of chloral in each, were administered at two hours' interval. No fit occurred, and, furthermore, the contractions were quite painless, though they were even more intense and frequent than normal. In the second case, where albumen was found in the

urine, there existed the usual conditions for eclampsia. Hydrate of chloral was administered as a preventive, and no fit occurred. Lastly, in several other cases, where the patients were excitable, nervous and weak, Dr. Dujardin-Baumetz gave chloral with the greatest benefit, in doses of from one half to one drachm. It always had the effect of soothing the pain, and, moreover, of accelerating the process of labor. Dr. Baumetz much prefers chloral to chloroform in eclampsia, but recommends that it should be administered in sufficiently strong doses (two and even three drachms). —*The Lancet*, April 12, 1873.

The Use of Post Partum Binders.

At a recent meeting of the Obstetrical Society of Edinburgh, a somewhat remarkable paper was read by Dr. Cairns, opposing the use of binders after parturition, and, what is the strangest of all, his extraordinary views appear to have met with very general approbation from the members present.

The disadvantages in the use of binders enumerated by Dr. Cairns are as follows:

1st. That their application entails unnecessary trouble upon the accoucheur. Dr. Cairns confesses that when he first entered upon practice, it cost him more trouble to apply the binders in many cases than to deliver either the child or placenta.

2d. That their application unnecessarily exposes the patient, which, if several persons are present, may thereby shock her moral sensibilities; it may, moreover, expose her to currents of cold air, which, on her part, may lead to the most disastrous results.

3d. Post partum binders impede the circulation, slipping far above the region of the uterus, thus interfering with the venous circulation, and thus tending to aggravate two diseases very common in pregnant women, viz.: varicose veins and hæmorrhoids.

4th. They are rarely of proper form. They should properly extend from the enciform cartilage to a considerable way beyond the nates.

5th. In cases of post partum hæmorrhage, the patient may die before the binder can be removed in order to apply the proper remedies for its arrestment.

Dr. Cairns, in conclusion, compares parturition in civilized and uncivilized conditions, and those two with the parturition of the lower animals. The latter, he affirms,

owing to their pendent bellies, evidently require binders much more than women.—*Boston Medical and Surgical Journal.*

We are not quite certain whether the *Boston Medical and Surgical Journal* is not dealing slightly in satire when it says, "a somewhat remarkable paper," etc., and "what is strangest of all, his extraordinary views appear to have met with very general approbation from the members present." Now, the editor of the *Boston Journal* must certainly have been aware of the agitation of this subject for the past fifteen or twenty years at least, and it is our belief that very few, indeed, of the medical profession to-day would use the post partum binder but for the ignorant prejudice in its favor of many of their lady patients. We have had charge of a lying-in hospital for over five years, and have yet to use the first bandage. However, we do think that Dr. Cairns' objections to their use are the least ones, others of much greater magnitude occurring to our minds.

Resuscitation of a New-born Infant After Nearly Four Hours of Artificial Respiration.

This instructive case is reported by Dr. John J. Marshall in the *Medical Press and Circular*. Upon being called to the mother, the right arm and funis were found to be presenting, and, after a short delay, "turning" was resorted to and delivery effected. The child, when born, was apparently lifeless, so that the funis was divided, without ligature, to see if any blood issued from the cord, and the child never cried; while slapping, cold water sprinkling, and brandy application failed to elicit any indications of life. When the child was placed on the table and in the light, faint pulsations of the heart were noticed, which led to attempts at artificial respiration. The method in which respiration was maintained is well described. The infant having been laid upon his back and rolled in a warm blanket, was so placed that the head extended over the edge of the table, and was allowed to droop a little, to prevent the air from passing into the stomach. The face was next covered with a towel, and the little nostrils having been compressed with the left thumb and forefinger of the operator (his right supporting

the head), air was regularly and forcibly breathed into the lungs, and again expelled from them by an assistant pressing alternately with his two palms on the chest, which was also vigorously rubbed with brandy.

This treatment, *after an hour's* steady prosecution, the heart's action in the meanwhile being almost imperceptible, was awarded with one voluntary inspiration. The artificial respiration was patiently persisted in, and at the end of another half hour, a second single gasp was given. Hot baths and the treatment recommended by Sylvester and Marshall Hall were next tried, until at last, the child began to breathe regularly at the rate of fifteen respirations per minute, this being at the expiration of nearly four hours after birth.

Dr. Marshall concludes with the observation that, out of all the methods of resuscitation employed in this case, the breathing and expulsion of warm air appeared to have the most beneficial effect on the infant, and especially when the mouth to mouth breathing was combined with the raising and depressing the arms.

The result of this case should encourage the practitioner not to regare as hopeless the condition of those infants who may be born in a state of defective vitality, asphyxia or apoplexy; for if our efforts at resuscitation are only persistently maintained, we may often succeed, even after the expiration of hours, in restoring the child to life.

Treatment of Fissures of the Nipple.

In a paper by Dr. Créquey, fissures of the nipple are described as being of two kinds. First, those produced by the violent suction on the part of the child; here the epidermis is raised and abraded, as if by a cupping-glass. In this condition of the nipple, the child should be allowed to suckle only when the breast is charged with milk. Second, at other times, a little of the milk lodges in the minute cracks at the base of the nipple, where it comes in contact with the secretions of the body and rapidly decomposes, thus acting as an active irritant of the skin, and in some instances inducing very extensive inflammation. As a preventive of cracked nipples, originating in this manner, the breast should be bathed with warm water, wiped dry, and then annointed with the following ointment:

℞. Tannin, 1 gramme; (gr. xv.)
Glycerine, 10 grammes. (ʒ jj.)

This should be applied by means of a camel's hair brush, after which the nipple should be protected with charpie, or a soft linen cloth. In these cases, the nipple-shield may be employed to advantage.

If the breast be distended with milk, relief may be afforded by the application of a large flax-seed poultice, taking the precaution to protect the nipple with a piece of soft leather.—*Gaz. des Hop.*, 1873, p. 84.

Removal of Fibroids by Enucleation.

Dr. T. Gaillard Thomas exhibited to the New York Obstetrical Society (Oct. 3, 1872) a mass the size of a cocoanut, consisting of three fibroids which he had recently removed by enucleation. The woman, who was a patient of Dr. H. Moeller, had suffered for some months from excessive menorrhagia. When seen by Dr. Thomas, the uterus was found to be as large as at the fifth month of gestation; the cervix was found well dilated, and a large fibroid presenting, which, on examination, proved to be sessile, and attached posteriorly. The patient lying upon her back upon a table, Dr. Thomas proceeded to enucleate by cutting through the capsule of the tumor with scissors, and then insinuating a grooved steel sound under the capsule, which he separated as far as possible from its attachments. Traction was then resorted to, combined with powerful expression from above, which resulted in the extrusion of a large mass in about forty minutes; another mass was felt above the one extracted, which was in like manner removed; traction then being made upon the capsule, it came away, having attached to it a still smaller tumor. There was a very little hemorrhage. Opiates were given, and intra-uterine injections of carbolic acid were daily used. The patient did well for four weeks, though she now has a mild attack of phlegmasia dolens, from which she has suffered once before as a sequel to parturition. This is the sixth case in which Dr. Thomas has resorted to enucleation, in all of which the recovery has been perfect. He has, however, lost two patients in the preparatory treatment by sponge-tents. Dr. Thomas considers the operation in its results more formidable than ovariotomy.—*Am. Jour. Obstetrics.—Am. Jour. Med.*

Ophthalmology and Otology.

(Clinic of N. J. MARTINACHE, M. D., City and County Hospital.)

Notes of Hospital Practice.—Stricture of the Lachrymal Ducts of Ten Years Standing—Ectropium of the Inferior Lids—Opening and Catheterism of the Lachrymal Ducts—Rapid Amelioration.

F. L., aged 48, was admitted Nov. 19, 1872; his malady being of more than ten years' standing. Previous to my first seeing him, April 19, 1873, the patient had undergone, during five months, a treatment consisting in applications of nitrate of silver, from which he derived no benefit, according to his statement and that of those who were acquainted with his case. Moreover, a dark brown color of the ocular conjunctiva, due to the excessive use of this caustic, and which will never disappear, may be mentioned as being needlessly added to the following numerous lesions of the eyeball and lids.

April 19.—The lids are intensely swollen, particularly on the edges; those of the upper lid are quite thick, there existing in the entire length under the skin a very distinct swelling, as big as a quill, and hard as a cartilage.

The inferior lids are so completely everted, that the internal have become the external surfaces, and, as a consequence, there is a considerable saillie of the *cul de sac*, besides numerous folds in the palpebral region, with elongation of the edges of the lids.

The puncta lacrymalia, following the eversion of the lids, are turned down, and, owing to the above mentioned elongation of the palpebral edges, are twice their natural distance from the internal canthus. Between the eyeball and the mucous surface of the inferior lids, there is a large space constantly filled with mucus and tears, which gives the eye the appearance of floating in it.

The tears run down the cheeks, not a drop passing through the lachrymal passages, which obliges the patient to continually wipe his face with a rag. This perpetual lachry-

mation has set up an irritation of all the surrounding skin, which is deeply ulcerated, with swelling of the subcutaneous tissue. These ulcerations, reacting upon the lachrymal glands, cause them to secrete more actively, so that between alternations of cause and effect, they keep the patient in a vicious circle.

The lashes of the inferior lids have fallen out; and the few that remain are in an advanced stage of atrophy. In the upper lid, they are more numerous, though still very thin, and growing in tufts.

The upper lids are so heavy that the patient can hardly raise them, looking as though there was paralysis of the elevator. When the patient closes his eyes, they are completely everted, showing the mucous surface of the lids, and turning up the marginal surface of the tarsal cartilages. This rotation of the lids when closing the eyes indicates paralysis of the middle portion of the orbicularis, rendering it unable to maintain the lids in contact with the eyeball; then, as the peripheral fibres contract, the cartilage becomes everted by its upper edge being pressed down; the lower edge meanwhile turning up.

Both corneæ present central leucoma, resulting from the cicatrisation of former ulceration. Iridectomy has been performed on the left eye, but without any advantage. as the principal cause of disease in this case (obstruction of the lachrymal passages) has been overlooked. The vision is very poor, or, it would be more correct to say, the patient hardly tries to see at all, as the least glimpse of light sets a going all the before-mentioned troubles. The poor fellow looked no longer like a human being, but was gradually assuming (if Darwin's theory be true) the ancestral simian appearance.

The preceding account of the case conveys but a very faint idea of the general condition of the patient.

Now, the question was, what was the best thing to do? If it is borne in mind that this was a case of ten years' standing, and had been treated for five months without amelioration, my embarrassment will be easily understood. After attentively turning the matter over in my mind, I concluded

to endeavor to re-establish the lachrymal passages, notwithstanding the meagre prospect of success.

April 29th.—Having previously ordered the patient to keep his bed for a week, in order to avoid irritation from light—and chloroform being administered on account of his pusillanimity—I made the section of the inferior lachrymal ducts, and with much difficulty introduced a probe, No. 2, on each side, which was allowed to remain for half an hour. I resected at the same time a large fold of conjunctiva from the entire length of the lower lids. Every other day I passed probe No. 2.

May 3d. The tears now begin to pass into the nose, and lacrymation is diminishing.

May 10th. Treatment continued. Pulled eye-lashes (which I have since done every fourth or eighth day, according to circumstances). The tears now pass completely. The eversion of the inferior lid is gradually lessening as the cicatrix of excision progresses. Swelling of the upper lids much reduced.

May 20th. The improvement is striking. Persons who have not seen the patient for three weeks can hardly recognize him.

May 30th. The swelling of the upper lids has almost disappeared. They no longer evert when the patient contracts strongly the orbicularis. Probe No. 3 is now passed, and the actual cautery has been applied in three places on the edge of the inferior lids.

June 8th. The result of the actual cautery being most satisfactory, I again applied it. The eversion is gradually diminishing.

June 20th. The swelling of the upper lid has disappeared, and the lashes are beginning to grow to their natural size. The eversion of the inferior lids is becoming less and less every day. The tears continue to pass into the nose, and the sight is rapidly improving. From time to time, there is a spell of irritation, but it usually goes off in the course of twenty-four hours. Everything indicates a speedy cure, which will be completed by an iridectomy on the right eye. The patient is now in good spirits, and his general health is

much improved. By this observation it is shown once more that the value of the treatment depends upon a correct diagnosis, and above all, appears the unvarying rule, which a practitioner ought never to forget: "sublatâ causâ, tallitur effectus." In the previous treatment cauterisations of the mucous membrane of the lower lids were undoubtedly directed against the ectropium; the cause of all the troubles (the obstruction of the lachrymal ducts) was not attacked, and such a treatment could not have any effect. But from the very first day a course was pursued in accordance with the indications of the true diagnosis. The improvement astonished all those who had seen the case in its previous stages.

Causes of Blindness.

Hirschberg (*Berliner Klin. Wochenschrift*, Jan. 27, 1873) gives the statistics of 101 cases of blindness observed at his clinic in the course of three and a half years. When the two eyes were lost independently, the case is given under the head of the affection by which the second eye was lost.

Congenital, 3 (of which one only became entirely blind after some years).

Ophthalmia neonatorum, 16.

Later affections of the conjunctiva (blenorrhoica, diphtheritica, granulosa), 7.

Primary of cornea, 2.

Primary of uveal tract, 6.

Glaucoma, 12.

Myopia, 6 (two from posterior staphyloma, four from separation of retina).

Retinitis pigmentosa, 2.

Atrophy of opticus (genuine), 8.

Atrophy of opticus from disease of cerebro-spinal system, 11. (Of these, two children had symptoms of meningeal inflammation, one boy had an abnormal skull, and one girl had intra-cranial tumor. Seven adults had tabes.)

Neuritis optica from intra-cranial cause, 4 children.

Carcinoma of lid, destroying one eye, spreading to brain and blinding the other, 1.

Smallpox, 9.

Nervous fever, 2.

Unknown, 5.

Injury, 7. (Of these, three sympathetic of second eye.) —*Boston Med. and Surg. Journal.*

Editorial.

The Cholera.

The Asiatic cholera is striding from city to city along the valley of the Mississippi, whose inhabitants are fleeing panic-stricken before its fatal shadow. To what are the erratic visitations of this disease to be ascribed? Its identity with the terrible plagues that devastated the earth in the Middle and Dark Ages, has been pretty thoroughly established. Superstition saw in it then but the clenched hand of Providence—the Nemesis of an offended Deity—swooping down at its own wild will to lash an erring race for its shortcomings. This view may at the first blush appear unsatisfactory to the spirit of the age in which we live; this age of inductive reasoning, this era of interrogation points. But in truth it differs little from the opinion that generally obtains among the scientists and thinkers of our profession to-day. Many of the epidemics that afflict our race originate more or less directly from extrinsic causes, but this cannot be said of cholera. Miasma, cryptogami, infusoria, and all this class of morbific agents, may give rise to diseases, and their visits cannot be charged to the immediate fault of mankind. But the visitations of cholera are retributive. It is the avenger of outraged sanitary laws. It is the scourge for uncleanness, intemperance and violated hygiene.

San Francisco considers herself cholera-proof. Her Nessus' shirt is her ocean winds, which blow steadily and regularly. We flush our sewers once a year, but they flush our streets once a day. Our city is encircled by a quadrilateral of cess-pools; our drain-pipes empty with supreme *insouciance* upon our sidewalks; our streets go innocent of the contractor's broom for months together; our gutters are reeking with green slime, and our vacant lots with rotting garbage; but what need we fear with health-laden gusts from spice islands, thousands of miles off, daily dashing in our faces? We have a Chinese quarter that would create a

plague of itself in any other city of the Union—a black spot in our midst that outrivals Constantinople for filthiness, and Cologne for diversity of stinks. But we have a sea-breeze that peeps and searches into our dwellings like another Asmodeus, and never ceases its work until all the clouds of effluvium that lowered upon our houses are in the deep bosom of the ocean buried.

Lulled in the lap of this vaunted immunity, the Five Sleepers of the Board of Health doze as serenely as the lotus-eaters on their enchanted isle; while the city goes on in its wholesale courting of disease, which must bring about its evil effects sooner or later. Indeed, at the time of going to press, we understand that small-pox has broken out in Chinatown. These conservators of the public health have been aware, during many months past, of an outrageous nuisance at North Beach—a large stagnant pool of filth and scum, which lies seething under the sun's rays, and taints the whole of the northern slope of the city. This inky pool is shut off from communication with the Bay, and represents the long-accumulating concentration of the sewerage, the dump-cart garbage and the rotten organic matter for which that spot has long been made the common cloaca. Representations of this dangerous nuisance have been made through the press from time to time, appeals and petitions have been presented to the Board for its amelioration, but still the evil is let severely alone. In lethargic slumber they "lie reclined like gods together, heedless of mankind," while this hot-bed of pestilence is spreading abroad the seeds of disease and death. This wanton neglect on the part of those entrusted with the guardianship of the city's health is a matter that calls for something more than severest denunciation.

Change of Base.

The San Francisco Medical Society has committed a grave blunder in removing its place of meeting to the lecture-room of one of the rival medical colleges of this city—the Medical College of the Pacific. Towards the objects for which all such societies are established, viz., the advancement of

medicine, and the promotion of good-will and fraternity among her professors, it has hitherto striven faithfully and zealously. With an eye single to these high purposes, it has kept aloof from whatever broils may rage outside, admitting nothing that might disturb that peace and harmony which should govern all well-regulated assemblies, especially ours. Within its walls the embitterments of party strife have been unknown, and the repulsive shape of professional bickering has never dared to rear its hydra head. But in allowing itself to be tagged on to the institution in question, the San Francisco Medical Society has shown a lamentable disposition to undo the work of years, and to descend to that "filthy pool" of factious squabbledom for which this city has so long been accorded the championship. We will not stop to inquire into the motives that prompted the proffer of this room. In itself the matter is insignificant enough—simply the straw at which a waning cause will catch. "The University of California knows no rival," was the remark of Professor Gilman in his recent public address. Its medical department will soon know none; the doom of any such is either to give up the ghost honorably, or to sink into a "Diploma-Shop." But we trust that all members who have the real interests of the Society at heart will do their utmost to rescind this objectionable resolution, and clear that body from the imputation of lending itself to the schemes of any clique or party whatsoever.

The "Social Evil" in England.

By the following extract from an official report upon the subject, it will be seen that the Contagious Diseases Acts in England have been the means of greatly diminishing the pernicious effects of the "social evil" in that country; and the rapid decrease of public prostitutes is a significant evidence of the wisdom of the projectors of the bill, notwithstanding the theoretical opposition it met with at its inception. A similar bill was introduced into the last Cali-

fornia Legislature by Dr. Holland, but unfortunately it failed to pass. As it will come up again at the next session, it is to be hoped its passage will not be opposed:

"It (the report) states that the women in the several places subject to the Acts attended with regularity throughout the year, and that in a few instances only was it necessary to take proceedings before a magistrate. The Acts have exercised a repressive influence in several ways. Notwithstanding, we are told, the continued influx of common women from unprotected districts, the total number in the several districts on the 31st of December last had been reduced. The beneficial working of the Acts is, however, more clearly demonstrated by the reduction in the number of juvenile prostitutes; and this is very striking. The number of prostitutes in the different districts under the age of seventeen on the 31st of December last was nine; whereas in 1866, when the Acts were first put in force, there were three hundred and seventy-seven under that age. Again, on the 31st of December last, those under the age of eighteen were sixty-seven; whereas in 1866, there were five hunred and ninety-five! The number of brothels has been reduced by eighty-six during the past year, many of those suppressed being of the lowest description; seventy-one young creatures between the ages of twelve and seventeen, and one hundred and thirty-five women between the ages of seventeen and thirty-one, who were known to have commenced immoral practices, gave up that course of life upon being spoken to by the police; and the Assistant Commissioner's Report contains individual instances of many girls and married women who owe their rescue from a life of sin and misery to the well-directed and humane efforts of the officials engaged under these Acts."

The *Philadelphia Medical Times* accompanies the extract with a few well-timed remarks:

"In dealing with matters of this kind, the great point is to attack them where they are most vulnerable. We may not be able to get hold of the thread at the very end, and trace it all the way through, untangling every knot, but if we can make a decided beginning—as seems by the above showing to have been done in this instance—the result may be even beyond our expectations. The main difficulty is, that the male sinners, to gratify whose passions the 'social evil' exists, are not affected either by legal enactments or by social proscription. All they have to steer clear of is disease. But we do believe that it is far better to lessen

the rampant luxuriance of vice, even if the measures must be partial, than to leave it unchecked. The way may open to still further reformatory proceedings. So far as we know, St. Louis is the only American city in which any attempt has been made to establish and enforce any systematic supervision of prostitutes by the police."

A Valuable Gift to the Medical Department of the University of California.

J. L. Bardwell, Esq., of this city, has recently presented to the Medical Department of the University of California a valuable original painting (portrait) of Gabriele Fallopio, by Tintoretto. The picture has for some time past been on exhibition at the Art Union Association's rooms, and is considered by connoisseurs an exquisite work of art; being an original, the inference is, that it is a likeness, and as such, will doubtless be highly esteemed by the Regents and Faculty, not only as an acquisition to its museum, but as an indication of the interest which is already making itself manifest amongst our citizens in the welfare of our great central institution, the State University.

In this connection, we are authorized to say that, with a view to building up a museum that shall alike be a credit to the University and the State—that all contributions, whether of paintings or preparations, anatomical or pathological, are solicited, with the assurance that credit will be given in a proper manner to all contributors, whether they be professional or laymen.

MONTHLY REPORT OF DEATHS IN THE CITY OF SAN FRANCISCO, CALIFORNIA, FOR THE MONTH OF MAY, 1873.

By C. M. BATES, M.D., Health Officer. *No. of Deaths corresponding Month of* 1866, 242; 1867, 217; 1868, 334; 1869, 270; 1870, 309; 1871, 300; 1872, 254.

CAUSE OF DEATH.	Total	AGES. Under 1	1 to 2	2 to 5	5 to 10	10 to 15	15 to 20	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90	90 to 100	Over 100	Unknown	SEX. Male	Female	RACE. Caucas.	Mongol.	Afric.	WARD. 1st Ward	2d Ward	3d Ward	4th Ward	5th Ward	6th Ward	7th Ward	8th Ward	9th Ward	10th Ward	11th Ward	12th Ward	Public Inst.	Casualties.	Suicides.	NATIVITIES. Frgn	Atlntc	Pacfc	Unkn
Peritonitis	1																	1		1				1														1	2	1	
Leucocythemia	1							1										1		1														1			1			
Hepatitis	1								1									1		1														1			1			
VIII. URINARY SYSTEM.																																								
Nephritis	2		1								1							1	1	2				1										1				1	1	
Bright's Disease	5							1	2	1	1							4	1	5								2			1			2			3	2		
Albuminuria	1							1										1				1												1			1			
IX. DEVELOPMENTAL.—CHILDREN.																																								
Premature Birth	3	3																1	2	3								1			1	1							3	
Dentition	1	1																1		1				1															1	
Convulsions.—Infantile	15	6	5	4														7	8	15			1			2		2		1	3	3	1	2					15	
Stomatitis	1	1																1		1										1									1	
X. WOMEN.																																								
Childbirth	1							1											1	1			1														1			
Peritonitis, Puerperal	5						1	2	2										5	5				2					1		1		1				4	1		
Uterine Tumor (Febroid)	1								1										1	1					1													1		
XI. OLD AGE	1											1						1		1										1								1		
XII. NUTRITION.																																								
Anemia	2					1			1									1	1	2												1		1			1		1	
Inanition	20	17	3															11	9	20			2			1		2	2	1	1	2	3	4	2				20	
XIII. ACCIDENTAL.—Drowning	12			1				3	3	2	1						2	11	1	12																12		4	4	1	3
XIV. SUICIDE.—Drowning	2							1			1							2		1	1																2	2	2		
XV. CAUSES NOT SPECIFIED OR ILL DEFINED	11	6	2		1					1							1	5	6	10	1					3		1	1			3	3					2		9	
XVI. UNKNOWN	39	6	1				1	13	9	8		1						35	4		39		1	5		16		16		1								32		7	
XVII. HANGED FOR MURDER	1								1									1		1				1														1			
TOTALS	361	83	36	36	12	3	6	45	52	43	24	14	3	1			3	220	141	314	42	5	18	28	4	34	2	26	21	27	14	49	49	32	48	12	2	141	45	171	4
XVIII. STILL BORN																		13	11																						
XIX. BIRTHS REPORTED																			40																						

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Miscellaneous.

Co-operation of Medical Men with Dentists.

BY S. S. BLODGETT, D. D. S., OGDENSBURGH, N. Y.

(Extract from a paper read before the St. Lawrence County Medical Association, at Ogdensburg, N. Y., December 12th, 1872.)

My immediate object, gentlemen, in intruding upon your time and patience, is to secure your co-operation with the intelligent dentist in the work of preserving the teeth.

From the earliest period of intra-uterine existence until the eruption of the permanent set of teeth, the family physician sustains such relations that his teachings and advice have much to do with the future health of his patients' teeth.

I would have the family physician cognizant of the food used by the mother before the birth of the child, and especially during the period of lactation, while the teeth are in process of formation.

I would have the physician insist that an intelligent dentist examine the child's mouth frequently during the eruption of the teeth, and especially during the changing of the temporary for the permanent set.

We all know that the period of teething is one of anxiety, but the days and nights of anxious watching, and the bereavement it too often entails, may be saved by timely and intelligent treatment.

As an earnest of what I mean, let me call your attention to the six-year molars of our little ones. There are no teeth of more importance, and yet if you will take the trouble to look at the mouths of the children of your patients—particularly those of what we term the better or middle class—you will find these teeth, in nearly every instance, badly decayed, or entirely gone.

You will find more persons in St. Lawrence county at the age of forty or fifty years with these teeth perfect, than you will in the mouths of their children of ten to fifteen years.

This to the intelligent dentist is a frightful outlook, and unless parents and physicians co-operate with the dentist in arresting this destruction, we shall have, in course of time, a change in the character of face of our people—a deformity resulting from the loss of these teeth.

I ask your co-operation, gentlemen, in arresting this wholesale extraction of teeth. It is no more the province of a dentist to extract a tooth than of a physician to amputate a limb without an effort to save it; and, in these days of universal culture, the profession of dentistry has made such advances, that teeth are now preserved for a long time, which, a few years ago, it would have been considered impossible to save. This has been accomplished by the better education of the dentist, and the empiric in our profession no more challenges your confidence or respect than does the charlatan in yours.

I ask you, gentlemen, in diagnosis of disease, to take into consideration the condition of the mouth. Think you it is possible that your remedies will avail in a case where one, two, or perhaps more, ulcerated teeth are discharging fetid matters into the stomach at every act of deglution, and poisoning the air at every inspiration? To the cesspool we apply disinfectants as a sanitary precaution. I beg you to see to it that your patients are not poisoned by the inhalation of odors more deleterious than those of the cesspool.

I have thus tried to throw out a few suggestions—to direct thought in a channel that may be of use to our common humanity.—*Dental Cosmos.*

Group—Tracheotomy—Recovery.

Dr. Swan reported the case and showed the specimens.

H. L., æt. 4 years and eight months, a well-nourished, healthy-looking boy, had symptoms of spasmodic croup on the 5th instant. He had already had four entirely distinct attacks, the first having occurred at the age of 17 months, the last in April, 1872, for which I saw him. It terminated in a mild bronchitis of two weeks' duration. The father, when a boy, nearly lost his life by what is supposed to have been membranous croup. The spasmodic attack of the 5th instant had been preceded by a sore throat, with enlarged cervical glands, of ten days' duration, but terminating, apparently entirely, some three weeks before the attack, nothing having marked the interval, except, perhaps, a slightly inferior condition of the general health. The spasms occurred and continued for a while, principally at night, and the days were pretty comfortable. There was some febrile movement the first forty-eight hours, during which the pulse reached, at one time, 120. In about

five days, *i. e.*, the 10th inst., the voice was reduced to a husky whisper, phonation being quite exceptional, and, when occurring, very high-pitched and unnatural. The dyspnœa, which had been intermittent and concerned principally with the inspiration, now became constant, though varying in degree, and the expirations were also forced and audible. Deep epigastric depression occurred with every inspiratory act. The cough was dry and painful, and signs of distress were too apparent. On the 11th, the chamber was imperfectly supplied with steam, but on the following day a regular and abundant supply was begun, and this was maintained throughout the principal part of the treatment. The disease progressed from bad to worse, the greatest dyspnœa being in the night, but the color had continued good till the morning of the 13th inst., about the eighth day from the first attack of dyspnœa. On that morning, there was marked lividity of the hands and face, and the patient lay upon his side, exhausted. While preparations were making for tracheotomy, I was suddenly called, and saw that he had ceased to breathe. Faint pulsations of the heart were still audible to the ear placed upon the chest.

There was neither time nor occasion for ether. The trachea was at once opened, and a double canula inserted. Artificial respiration was begun by blowing directly through the canula, and after five or six inflations, the natural breathing began, and in a little while the child was restored to consciousness. A fibrinous cylinder, cylindrical for an inch of its extent, was immediately thrown off through the tube, and this was the first occular evidence that any such deposit had occurred, the throat having been found perfectly clean whenever examined, although the fauces had a tumid look, with narrowed isthmus. On the following day, another cylinder, similar to the first, though perhaps narrower, was thrown off through the tube, after a struggle which threatened suffocation. At other times, small fragments came away without special effort. The patient went on well after the operation. The secretion of thick, tenacious, semi-purulent mucous, which seems to mark the favorable cases, as distinguished from the watery secretion which spatters out through the tube in the unfavorable ones, continued copious and essentially the same in character throughout, occasioning, at times, not a little trouble to the patient in his spasmodic struggles to get rid of it, and to the attendants whose duty it was to keep the canula clear. The room was kept at a high temperature—76° to 80°—and the steam was allowed to be always peceptibly felt in the room. Moreover, the lowering of the temperature

and the withdrawal of the steam were made a gradual process from day to day. On the 18th inst., five days after tracheotomy, the tube was removed, an hour after the administration of an opiate, and there has been no occasion to return it. For some days afterwards, there were occasional laryngeal spasms, generally connected with efforts at expectoration, and these were at times almost alarming; but it has been interesting to watch the gradual return of function to the larynx, the wound in the trachea meanwhile gradually closing, and the strength, appetite and sleep regularly improving. The wound is now (26th) nearly closed, cough and expectoration at minimum, and voice very good.—*Boston Society for Med. Improvement.*

A New Method of producing Local Anaesthesia.

The interest that has been recently manifested in the profession on the subject of anæsthetics, induces us to take an early opportunity of directing our readers to an important paper, by A. Horvath, of Kieff, published in the *Centralblatt fur die Medicinischen Wissenschaften*, proposing a new method of producing local anæsthesia. It is a well-known fact, that if the hand be immersed for a short time in ice-water, an intolerable pain is caused, and the hand has to be withdrawn. In the course of a series of experiments, made in reducing the temperature of frogs by means of cold alcohol, Dr. Horvath observed that no such pain was produced when the hand was immersed in cold alcohol, not even when the temperature of the alcohol was as low as 5° C. Pursuing the experiment still further, glycerine was found to possess a property similar in this respect to alcohol. Ether, on the other hand, caused pain, the same as ice-water, while the pain produced by cold quicksilver was more acute, causing the speedy withdrawal of the finger when plunged into this liquid at a temperature of -3°. It was next ascertained that, when the finger was held for quite a long time in alcohol having a temperature of 5° C., no pain whatever was experienced, and what was a still more remarkable phenomenon, although the faintest touch was distinctly perceived in this finger, yet no pain whatever was experienced from sharp pricks, which in other fingers were sufficient to cause considerable pain. This experiment seemed to show that the application of cold alcohol has the effect of depriving the part of the special sensibility

to pain, without, however, impairing the delicacy of the general tactile sensation, which, as is well known, resides in the superficial integument. This apparent possibility of the artificial separation of these two nervous functions, viz., the tactile sensation, and the sensation of pain, and the temporary suspension of the latter, seem important in a physiological point of view, and also of no small practical utility in allaying certain forms of local pain, more especially that caused by burns and surgical operations. With regard to burns, Dr. Horvath soon had an opportunity of testing the value of this application on his own person, as well as upon others, and with the most satisfactory results. Not only was all pain instantly allayed, directly the part was immersed in alcohol, but it was found that the wound very speedily began to assume a more healthy appearance, the surrounding redness rapidly failing. The process of healing seemed also to be accelerated. If that theory is a correct one which ascribes the frequent fatal termination of burns to the result of the constitutional shock induced by the severity of the pain, in that case the application of cold alcohol, in that it affords the patient an immediate relief from his sufferings, will prove a powerful agent in such accidents in saving life. In like manner, this same application may be found valuable, it is thought, in cases of traumatic tetanus. The method of producing local anæsthesia by the aid of ice, ether and rhigolene has been perfectly understood for many years. These agents have never been extensively employed, however, inasmuch as it has been found by experience that the process of freezing the part is often productive of quite as serious pain as would have been experienced from the operation without the administration of any anæsthetic. The ether spray is found to be a source of embarassment to the operator, for, if not carefully directed, it is liable to take effect upon his own fingers, bringing on a sudden numbness, which is more surprising than gratifying. It can, moreover, be applied to only a limited extent of surface at a time.

The extreme simplicity of this new anæsthetic, the ease with which it can be applied to any part of the body where pain is experienced, or when it is desired to make an incision—all these circumstances tend to make it highly probable that its employment will ultimately become general, thereby doing away, in a great measure, with the disagreeable and dangerous effects of ether and chloroform.—*Boston Medical and Surgical Journal.*

Obstinate Intercostal Neuralgia of Three Years' Standing, following a Severe Attack of Herpes Zoster—Cured by Hypodermic Injections.

REPORTED BY MR. J. C. CAMERON.

A. F., aged 70, married, was admitted into the Montreal General Hospital on the 26th September, 1872, suffering from severe paroxysmal pain in the left side. She states that *three years ago* last March she was suddenly seized with severe shooting pains in the left side, followed, in two or three days, by the appearance of many small blisters, looking, as she says, "as if it had been *burnt*." The part thus affected subsequently remained ulcerated and sore for a length of time, but finally healed, but the pain which had accompanied it throughout remained, and, indeed, she has never been entirely free from pain in the part since the first commencement of the attack, and latterly this pain has been becoming more severe. The pain is now evidently neuralgic, occurring in violent paroxysms, and following apparently the course of the seventh and eighth intercostal nerves. It is darting and stabbing in its character, and the usual anterior, posterior, and mid-lateral *tender points* are extremely well marked. There are to be seen, surrounding the left half of the chest, just below the mammary gland, a series of cicatricial patches, varying in size from half the palm of one's hand to that of a quarter of a dollar, white and glistening in appearance, and which at first were naturally taken for the scar of a burn, until the previous history just related was known, and it was found that the cicatrices extended exactly from the sternum to the vertebræ round one side of the body.

Ordered cod-liver oil, and to have a hypodermic injection of one quarter of a grain of muriate of morphia every night.

It is unnecessary to give a detailed report of this case. Relief to the pain was immediate; the tenderness of the "points" soon became much less, and she slept soundly at last without the morphia. Discharged cured, for the time at any rate, on the 28th October, 1872, after just one month's treatment.

This case is an example of the extreme severity of some of the neuralgias, which are found to be accompanied by herpes zoster; also, of the extent to which the latter may lead to ulcerative destruction of the skin, and the obstinacy and persistence of the subsequent painful affection.—*Canada Medical and Surgical Journal.*

Cause of the Decomposition of Eggs.

The question of the decomposition and decay of eggs has been the object of numerous experiments, some of which seemed to lead to opposite conclusions. A committee of the French Academy have arrived at the following conclusions:

1. Eggs that have not been shaken can be preserved quietly without fermenting or decaying.
2. Shaken and broken eggs decompose in less than a month.
3. In no stage of decay is the slightest trace of an organism, either animal or vegetable, to be found in the egg.

The decomposition of eggs, with all signs of decay, and without the presence of any microscopic organisms, is contrary to Pasteur's theory, according to which every destruction of organic matter, and its conversion into its inorganic elements, is due to the development and increase of small organisms. U. Gayon has made some new experiments on this subject, the results of which are given in *Comptes Rendus*, vol. 76, p. 232.

By exposing unshaken eggs to the atmospheric air, at a mean temperature of 77 deg. F., he found that one portion of the egg underwent decay; the other did not.

On making the same experiment with shaken and broken eggs, some decayed, others did not, even for several months.

In all cases where the eggs remained sound, it was impossible to discover the slightest trace of an organism; on the contrary, in all those which decayed there were numerous microscopic organisms from the species of vibriones and mushrooms.

These facts contradict the previous suppositions. Without anticipating any decision which may be obtained by further experiment, Gayon inclines to the opinion that the germs of organisms are originally present in those eggs which decay.—*Journal of Applied Chemistry.*

Fraenkel on Placental Syphilis.

Dr. Ernest Fraenkel (*Archiv fur Gynaekologie*, April, 1873), in a most interesting and exhaustive paper on this subject, illustrated by some well executed plates, and recording in detail the particulars of more than twenty cases, arrives at the following conclusions:

1. The placenta may become syphilitic, and there are certain characteristic indications of this.

2. The syphilitic placenta occurs only in hereditary or congenital syphilis in the fœtus.

3. The seat of the disease is different, according as the mother remains healthy and the syphilitic virus is communicated directly from the father to the ovum by means of the spermatozoa, or according as the mother is diseased.

In the former case, the affected fœtal villi of the placenta degenerate through cellular granulation, with consecutive obliteration and atrophy of the vessels, complicated frequently by marked proliferation and condensation of the epithelial covering of the villi.

4. In the second case, when the mother is syphilitic, the three following conditions are possible:

a. The mother, through the act of impregnation, is simultaneously affected with syphilis with the fœtus; diffused syphilis of the placental villi may then develop itself, but primary infection of the maternal parts—endometritis placentaris—is not excluded.

b. The mother has been infected with syphilis before or shortly after conception. The placenta may remain normal, or become diseased under the form of endometritis placentaris gummosa, or (according to Virchow) in a narrower sense—endometritis decidulais.

c. The mother becomes infected only during the latter months of pregnancy (seventh to tenth month). It then generally happens that, in case the father was healthy at the time of impregnation, the fœtus as well as the placenta are exempt from the alterations described above.

5. The infection of the fœtus by passing through the genital canal of the mother is rare, and not yet proved beyond doubt.

Medical Declaration Concerning Alcohol.

In view of the alarming prevalence and ill effects of intemperance, with which none are so familiar as members of the medical profession, and which have called forth from eminent English physicians the voice of warning to the people of Great Britain concerning the use of alcoholic beverages, we, the undersigned members of the medical profession of New York and vicinity, unite in the declaration that we believe alcohol should be classed with other powerful

drugs; that when prescribed medicinally it should be with conscientious caution and a sense of grave responsibility.

We are of the opinion that the use of alcoholic liquors as a beverage is productive of a large amount of physical disease; that it entails diseased appetites upon offspring, and that it is the cause of a large per centage of the crime and pauperism of our cities and country.

We would welcome any judicious and effective legislation —State and national—which should seek to confine the traffic in alcohol to the legitimate purposes of medical and other sciences, art and mechanism:

Edward Delafield, M. D., President College of Physicians and Surgeons, and of Roosevelt Hospital.

Willard Parker, M. D., ex-President Academy of Medicine.

A. Clark, M. D., Professor College of Physicians and Surgeons, and Senior Physician Bellevue Hospital.

James Anderson, M. D., No. 36 University Place, ex-President Academy of Medicine, and President Physicians' Mutual Aid Association.

E. R. Peaslee, M. D., ex-President Academy of Medicine, N. Y.

C. R. Agnew, M. D., ex-President Medical Society of the State of New York.

Stephen Smith, M. D., Surgeon Bellevue Hospital, Commissioner of Health, and President American Health Association.

We cordially indorse the above expression of opinion.—EDS. LANCET.

Passage of a Large Number of Pins, etc., Per Annum.

REPORTED BY JAMES L. FITE, M. D., LABANON, TENN.

The following interesting case came under my observation, and I send it for the *Journal*. For a greater part of the history I am indebted to the little patient's father.

Minnie Ross, three months old, on the 25th of February, 1872, had an action from her bowels, after which the points of three pins were discovered. The mother took hold of them with her fingers and pulled them out. The pins looked bright and new.

About three o'clock the same afternoon, two more pins were extrated in the same way—one point, and the other head foremost.

On the next day, about three o'clock in the afternoon, the baby passed thirteen more pins and two needles—the needles were small cambric needles with the points broken off. The pins were all of the same kind, except one large brass pin.

About half-past 3 o'clock on the same evening, she passed a small agate button. This was on Wednesday, the 26th of February, 1873.

On the following Monday, March 3d, about 3 o'clock, P. M., the baby passed nine more pins, eight of which I enclose you. These, you will discover, are somewhat corroded.

On Thursday following she passed one pin, very much corroded.

So far as I know, the baby has never had a pain or made a grunt from the effects of these pins, etc. Minnie Ross was three months and nine days old on the day the first pins appeared.

My theory is, that these pins, needles, and button, were given to the baby by a little servant girl, on the morning of the day the first pins came.—*Nashville Journal of Medicine and Surgery.*

Aloes in Hemorrhoids.

Prof. Fordyce Barker, in the *American Practitioner*, on the treatment of hemorrhoids in pregnancy, says: "When hemorrhoids are developed during the latter period of pregnancy, the indications are obviously to counteract the constipation or the diarrhœa, and to stimulate and to restore the tonicity of the hemorrhoidal veins. The inquiry will then naturally suggest itself, have we any agent or combination of agents in the *materia medica* capable of effecting these results? I know of no article which so clearly and positively produces these two results as aloes, and on this I have mainly relied. I am well aware that the general voice of the profession is against the use of aloes when there is any tendency to hemorrhoids."

We are enabled to add our testimony to that of Professor Barker's in the use of aloes in the condition referred to. We would also, in this connection, call attention to the use of aloes in hemorrhoids, from whatever cause, occurring in the male or female. Given in small doses we get its mild, stimulant action upon the dilated and distended vessels, and hence a restoration of tonicity. We give the rem-

edy in one grain doses, two or three times a day, combined usually with a grain of the sulphate of iron and one fourth of a grain of extract bella donna. This combination will rarely disappoint us in relieving both the attendant constipation and hemorrhoids.—*Atlanta Med. and Surg. Journal.*

Removal of a Needle from the Heart.

In the session of the Royal Medical and Surgical Society of February the 1st, of this year, Callender reports the case of a man, into the apex of whose heart—by what occurrence is not stated—a sewing needle had entered. The patient attended to his business for nine days, although in pain all the time. On that day an incision was made into the fifth intercostal space, the broken end of the needle was discovered, and by traction removed from the heart. Patient recovered completely, without further sickness. Referant illustrates by drawings the motions which the broken end of the needle was seen to make after the incision into the intercostal space, corresponding completely with the motions of the heart. (This case speaks in justfication of the proposition to use electro-puncture of the heart, made by Steiner in No. 22, of this journal, in chloroform asphyxia.)—*Berliner Klinische Wochenschrift*, No. 12, 1873.

Fluid Extract of Male Fern in Tape Worm.

To secure the successful destruction and expulsion of tape worm, two points are to be particularly carried out. First, the patient must fast at least twelve hours before taking the remedy; and second, it must be taken in sufficient quantities to kill and expel the entire worm. Frequently it is a matter of good policy to give the patient a cathartic in the night, so as to have the alimentary tract free from fæces as much as possible. Then in the morning, on a fasting stomach, give the male fern in some pleasant combination, as the syrup of acacia or glycerine. From thirty to sixty minims of the fluid extract of male fern must be combined at each dose, and repeated every two hours, until the stomach rebels against it, the patient keeping very quiet in the meanwhile. No worm can resist this treatment

when carried out on the above principles. The fern will move the bowels and expel the entire worm. It is the most reliable remedy for tape worm, when given in accordance with the above directions. The patient must fast during the time he is taking the remedy, and the bowels must be previously well cleared out.—*St. Louis Med. Archives.*

Professor Knox and Text Book on Anatomy.

Every Saturday quotes the following from *All the Year Round:* Perhaps the most eminent teacher of anatomy in Edinburgh, or in Britain, early in this century, was Dr. Robert Knox. He was a man abounding in anything but the milk of human kindness toward his professional brethren, and if people had cared in those days to go to law about libel, it is to be feared Knox would have been rarely out of a court of law. Personality and satirical allusions were ever at his tongue's end. After attracting immense classes, his career came very suddenly to a close. I need scarcely refer to the atrocious murders which two miscreants, named Burke and Hare, carried on for some time to supply the dissecting-rooms with "subjects." They were finally discovered, and one of them executed, the other turning king's evidence. Knox's name got mixed up with the case, being supposed to be privy to these murders, though many considered him innocent. The populace, however, were of a different opinion. Knox's house was mobbed, and though he braved it out, he never afterward succeeded in regaining popular esteem. He was a splendid lecturer, and a man who, amid all his self-conceit and malice, could occasionally say a bitingly witty thing. It is usual with lecturers at their opening lecture to recommend text-books, and accordingly Knox would commence something as follows: "Gentlemen, there are no text-books I can recommend. I wrote one myself, but it is poor stuff. I can't recommend it. The man who knows most about a subject writes worst on it. If you want a good text-book on any subject, recommend me to the man who knows nothing earthly about the subject. (That is the reason that Dr. T. was asked to write the article, 'Physical Geography,' for the *Encyclopædia Britannica.)* The result is that we have no good text-book on anatomy. We will have soon, however; Professor Monroe is going to write one." That was the finale, and, of course, brought down the house, when, with a sinister expression of his face, partly due to long sarcasm and partly to the loss of an eye, he would bow himself out of the lecture-room.

Old Clothes.

The danger of standing in other men's shoes, or of wearing their cast-off habiliments, is sometimes overlooked. M. Chevallier relates, in the *Journal de Chimie Medicale*, Jan., 1873, that a young man of good family died in December last, because, instead of buying new gloves, he bought a pair of cleaned gloves. Either from the cleaning having left a poisonous substance inside the gloves, or from some venomous insect lodged there, he felt presently a sharp pain in an abrasion which he had on the thumb. He bore it for a while, but at the end of half an hour he was obliged to tear the gloves off. His hand was swollen, and the spot was black. Gangrene followed, and death. The story reminds one of some of the well vouched histories of the effects of the bite of the juniper-fly in China, or of cases of the charbon or malignant pustule which are due to infection. M. Chevallier mentions another case, in which a second-hand pair of pantaloons conveyed skin-disease; and recent prosecutions for selling the clothes of small-pox patients suggest still more serious possibilities.—*Brit. Med. Jour.*

Last Words about the Epizooty.

These last words are in the form of horse doctors' bills. We have seen several, but the following from a St. Louis veterinarian is the most striking:

SANT LEWIS Ganewerry the 4d 1873

Mr.————to james HanKox

Vetturerinary physickian and Surgeant Dr.

Too medikle advice twict	$3 00
Konsultation over a ded mare sed to hev hed the eppzout	75
Goin to see two sick hosses in the nite (very cold)	2 00
To treatment of a kream kolered hoss two days with medisuns	4 50
To making an obstetrikul examinashun of a hosses throat	1 50
To settin up all nite in a barn with a sick hoss	2 50
To writin a preeskripshun for botts, & also one for spaving	1 00
To holding a postmortim examinashun on a hoss who afterwards recovered	1 50
To givin my opinyun one day on the street regardin the cause of the zoot	4 00
Totil	$20 75

The gentleman who received the above will not contest the same on account of the charges, but will pay it cheerfully as soon as he receives a remittance from his parents. —*Canada Medical and Surgical Journal.*

To Remove Bad Tastes.

The bitter taste of quinine, colocynth, aloes, quassia and other bitter medicines, may almost instantly be removed by chewing a small piece of liquorice root, says *La Tribune Medicale.*

Death of Napoleon.

We give below a report of the autopsy of the late Emperor, as signed by J. Burdon Sanderson, M. D., Dr. Conneau, Dr. Le Baron Corvisart, Sir Henry Thompson, J. T. Clover, and John Forster. The document is dated Camden Place, Chislehurst, January 10th, 1873, 6.30 P. M., and is as follows:

The most important result of the examination was, that the kidneys were found to be involved in the inflammatory effects produced by the irritation of the vesical calculus (which must have been in the bladder several years) to a degree which was not suspected, and which, if it had been supposed, could not have been ascertained. The disease of the kidneys was of two kinds: there was, on the one hand, dilatation of both ureters and of the pelves of the kidneys; on the left the dilatation was excessive, and had given rise to atrophy of the glandular substance of the organ. On the other hand, there was subacute inflammation of the uriniferous tubes, which was of more recent origin. The parts in the neighborhood of the bladder were in a healthy state; the mucous membrane of the bladder and prostatic urethra exhibited signs of subacute inflammation, but not the slightest indication of injury. In the interior of the bladder was found a part of a calculus, the form of which indicated that part had been removed. Besides this, there were two or three extremely small fragments, none of them larger than a hemp-seed. This half calculus weighed about three quarters of an ounce, and measured one and one fourth inch by one $\frac{5}{16}$th of an inch. There was no disease of the heart nor of any other organ, excepting of the kidneys. The brain and its membranes were in a perfectly natural state. The blood was generally liquid, and contained only a few small clots. No trace of obstruction by coagula could be found either in the venous system, in the heart, or in the pulmonary artery. Death took place by failure of the circulation, and was attributed to the general constitutional state of the patient. The disease of the kidneys—of which this state was the expression—was of such a nature, and so advanced, that it would in any case have shortly determined a fatal result.

Sir William Gull records a separate opinion in the following terms:

"I desire to express the opinion that the phosphate-of-lime calculus which formed the nucleus of the mass was the result of the prior cystitis (catarrhus vesicæ), and not the cause of it. This nucleus was of uncertain duration,

and may even have been more recent than supposed in the appended report.

"However this may be, it was incrusted by two distinct and recent formations of crystalline phosphate. The inner incrustation around the amorphous phosphate of lime was dense, and separated from the outer incrustation by a lesser cellular but crystalline deposit of triple phosphate. It seems, to my judgment, more in accordance with clinical experience, to regard the cystitis as the prior lesion, and that this, by extension, as is common in such cases, affected subsequently the uterers and pelvis of the kidneys. No doubt, in the later stages of the malady, the calculus, by its formation and increase, was an augumenting cause of the lesions.

"The other facts and statements I entirely indorse.

"WILLIAM W. GULL, M. D."

"January 10, 1873."

Ingrowing Nail.

Dr. Blower, of Liverpool (*British Medical Journal*, Sept. 21, 1872), has for the past twenty years employed compressed sponge successfully in the treatment of ingrowing nails. He renders the sponge compact by wetting and then tying it tightly until it is thoroughly dry. A bit of the sponge, in size less than a grain of rice, is placed under the nail, and secured by strips of adhesive plaster. In this way the point of the nail is kept up from the toe until the surrounding soft parts are restored to their normal condition by appropriate means.

Important Donation to Science.

Professor Tyndall, during his recent scientific lecturing tour in the United States, delivered in all thirty-five lectures, at which his receipts aggregated $23,100. After paying expenses, a fund of over $13,000 remained; and this, before leaving for Europe, he placed in the hands of a committee, who are authorized "to expend the interest in aid of students who devote themselves to original research." The committee are Professor Joseph Henry, of the Smithsonian Institute; Professor E. L. Youmans, of Yale College, and General Hector Tyndall, of Philadelphia.—*Cincinnati Lancet and Observer.*

Chloral for Toothache.

Dr. Page, in the *British Medical Journal*, recommends chloral hydrate as a local application in cases of toothache. A few grains of the solid hydrate introduced into the cavity of the tooth upon the point of a quill speedily dissolves there; and in the course of a few minutes, during which a not unpleasant warm sensation is experienced, the pain is either deadened, or more often effectually allayed. A second or third application may be resorted to, if necessary. —*Druggist's Circular and Chemical Gazette.*

Various anodynes will answer the same purpose. Among others, iodoform in one grain doses is a very efficient remedy for dental and facial neuralgia.—*Medical Cosmos.*

Solid Ink.

Here is something important to people who want to carry ink about them and not spill it: At a meeting of the Frankfort Polytechnic Association, Professor Boettger exhibited a novel kind of ink, which is adapted to take on journeys and exploring expeditions. White blotting paper is saturated with aniline black, and several sheets are pasted so as to form a thin pad. When wanted for use, a small piece is torn off and covered with a little water. The black liquid which dissolves out is a good writing ink. A square inch of the paper will give enough ink to last for a considerable writing, and a few pads would be all that an exploring party need carry with them. As water is always available, the ink is readily made.—*Journal of Applied Chemistry.*

Sciatica.

Some cases of this disease which had resisted a variety of treatment, were cured at Bellevue Hospital, *almost at once*, by the hypodermic injection of morphia over the seat of pain, plunging the needle deep into the tissues, perhaps to the depth of one or one and a half inches.—*N. Y. Medical Record.*

Freckles.

For the benefit of young persons afflicted with freckles, we would inform them that powdered nitre, moistened with water, applied to the face night and morning, will soon remove all traces of them.—*Druggist's Circular.*

Book Reviews.

A TREATISE ON THE PRINCIPLES AND PRACTICE OF MEDICINE. By AUSTIN FLINT, M. D., Professor of the Principles and Practice of Medicine and of Clinical Medicine in the Bellevue Hospital Medical College, etc. Fourth Edition. Philadelphia, Henry C. Lea, 1873; San Francisco, A. Roman & Co.

The concise and yet comprehensive style in which this work of Professor Flint is written is too familiar to the members of the profession to require any extended notice from us. Its excellence has been generally admitted; each edition has given more and more evidence of the care with which its author records facts observed in his extensive clinical experience; and the present, through the additions made to the "section devoted to the nervous system," furnishing, as they do, some seventy pages more of valuable matter than the preceding edition, fills a hiatus in the original plan of the work, which renders the present issue the most complete and perfect of any similar book in the English language.

Without detracting from the merits of other works, we unhesitatingly say that no medical library can be considered complete without a copy of "Flint's Practice," any more than could a law library in California be thought complete without a copy of the Statutes of the State.

It is indispensable to both practitioner and student, and we are glad to record that it has been adopted by a large majority of our educational institutions throughout the Union, as a text book.

DISEASES OF THE URINARY ORGANS, including Stricture of the Urethra, and Stone in the Bladder. By JOHN W. GOULEY, M. D., late Professor of Clinical Surgery and Genito-Urinary Diseases in the Medical Department of the University of the City of New York; Surgeon to Bellevue Hospital, etc., etc.

This is a handsomely bound volume of 368 pages, printed with pica type upon a good quality of paper. The illustrations, over 100 in number, are excellent.

The medical profession in this country has long felt the want of a good American work on the diseases of the urinary organs, the varieties met with here, in many instances requiring a totally different method from that taught by European authors upon this subject.

This class of diseases does not, as yet, seem to have engaged much attention in this country as in France, and it is, perhaps, owing to the absence of well arranged collections of cases. The work before us meets all the requirements of such a collection. The author gives us cases under his own treatment, as well as that of others connected with the hospitals of New York city.

As a book of reference, it will prove a useful addition to the physician's library. A. L. Bancroft & Co.

A Jump Off London Bridge.

The *Guy's Hospital Gazette* mentions that in No. 26, Clinical Ward, there is a case of pleurisy produced by a jump off London Bridge. The patient states that during the whole time of her fall and immersion she did not lose her senses, and, on admission, she inquired into what hospital she had been brought. She was in the water ten minutes. —*British Medical Journal.*

Material for Hypodermic Injections.

The equeous solutions of the alkaloids are soon impaired by the growth of minute fungi on the surface. This is prevented by the addition of 20 per cent. of glycerins. Sulphuric acid is thought to be better than hydrochloric to facilitate the solution of the salts.—*Chicago Medical Examiner.*

Modern Industry.

A Vienna journal contains the following announcement: "Anna Agrikol, sick-nurse, watches dead bodies, repairs straw chairs, applies leeches, and makes pastry desserts and delicacies."—*Medical Times.*

EUCALYPTUS GLOBULUS.

EUCALYPTUS AND ITS PREPARATIONS have been found useful in obstinate cases of Intermittent and Marsh Fevers, often supplanting the use of Quinine. The paroxysms of Asthma and Catarrh are greatly controlled, and in various Kidney Diseases and Catarrh of the Bladder it seems to act like a specific.

FLUID EXTRACT EUCALYPTUS.

This Extract represents in a concentrated form the Medicinal effects of the Leaves of Eucalyptus globulus.

DIRECTIONS.—The Dose of the Fluid Extract to be taken in cases of Fever, Catarrh, Kidney Complaints. etc., is One Teaspoonful, to be repeated three times a day, or oftener, according to the case, and it can be mixed with sherry wine, sweetened water, or milk.

As a Vaporization, in cases of Catarrh and Asthma, two tea spoonfuls are to be mixed with two table spoonfuls of boiling water, in a suitable inhaler, and the vapor respired into the lungs. This can be repeated as often as the paroxysms are felt.

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This Elixir represents the medicinal virtues of the leavesof EUCALYPTUS GLOBULUS. The aromatic and peculiar taste natural to the Eucalyptus has been disguised by various aromatics and sufficient sweetening added to make it quite agreeable to the most fastidious taste.

DIRECTIONS.—The Elixir can be taken in doses of One Tablespoonful, and can be given for all cases of Fever, Catarrh, Asthma, Kidney Complaints, etc., and can be repeated two or three times during the day, or oftener, if required.

CIGARETTES OF EUCALYPTUS GLOBULUS.

Useful in Asthma, Difficulty of Breathing, Incipient Pleurisy, etc.

DIRECTIONS.—On the approach of an attack, indicated by short and difficult breathing, smoke one Cigarette, or as many as may be necessary to obtain relief. When the symptoms are severe, the smoking should be repeated, two or three times a day. Asthmatic patients, whose powers are unimpaired, may also smoke several times a day, as a preventive against attacks.

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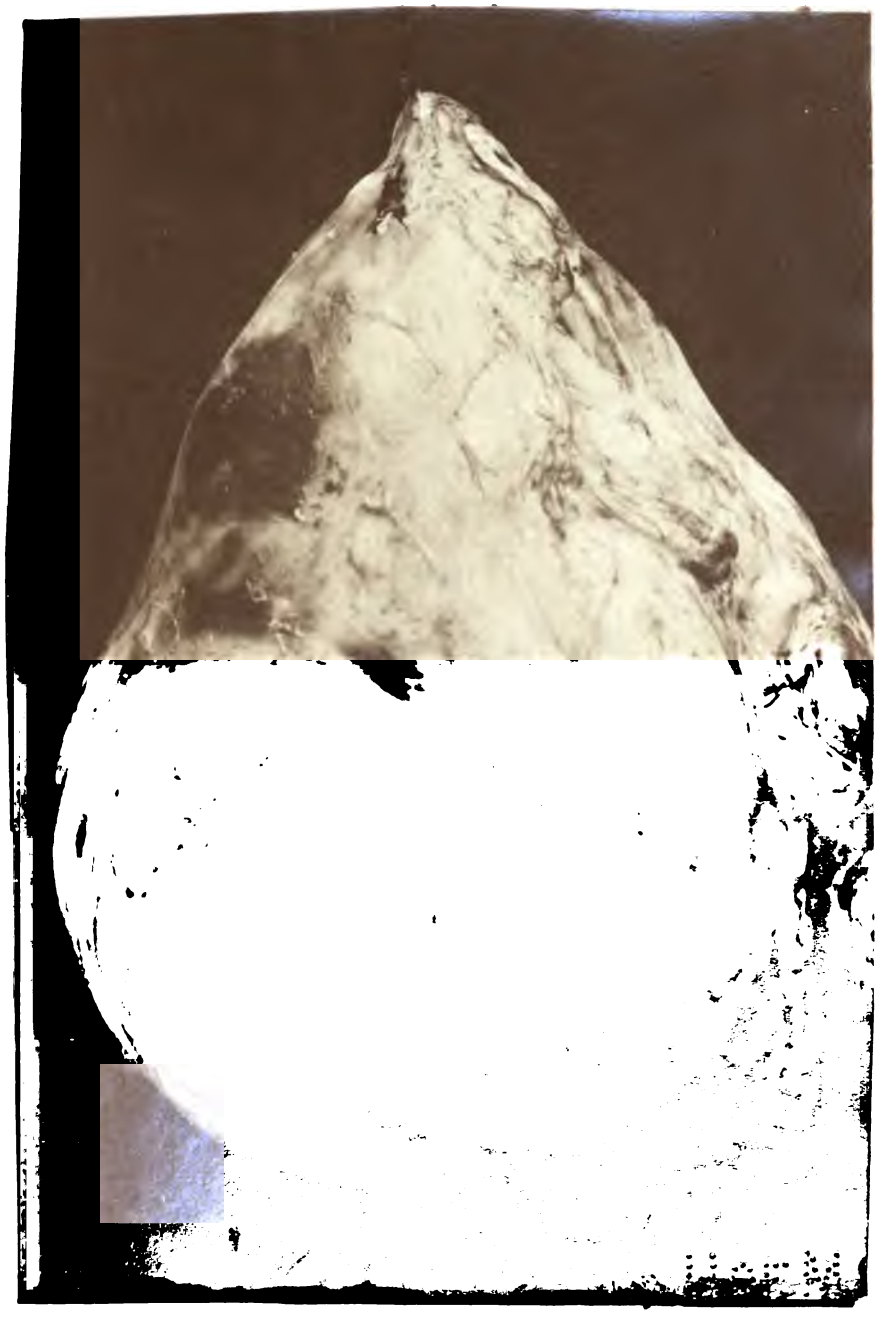

FIBROID TUMOR OF THE UTERUS.

See page 469.

THE

WESTERN LANCET:

A JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

FOR AUGUST, 1873.

Surgery.

Elongated Prepuce as a Cause of Impotency.

BY A. A. O'NEIL, M. D., PROFESSOR OF ANATOMY, UNIVERSITY OF CALIFORNIA.

Probably in the whole category of human ailments there is not a difficulty which gives greater cause for complaint, or renders the subject more mentally depressed, than any disease of the generative organs, particularly when such disease consists of impairment of function to such an extent as to constitute impotency. And the knowledge that they are so afflicted bears with such force upon their minds as to cause them to feed with avidity on the charming allurements presented by charlatans through the columns of the daily press, and, in this manner, they become the spoil of quacks, who hold out tempting offers of cure as long as golden offers are held out. After having run the gauntlet, and frequently exhausted their purse, they seek the advice of some regular practitioner. Now, I know of no patient so hard to treat, so difficult to manage and convince that you are giving all the attention and consideration which he thinks his case demands. The medical attendant, frequently having neither time to waste nor inclination to secure the confidence of the sufferer, neglects to give him that

moral medicine—the results of conversational powers on the part of the physician, and many times of as much importance as drugs and chemicals.

Impotency has its origin in many causes, and its treatment, to a certain extent, depends upon its cause. The variety I propose to speak of, and which I find most prevalent, affects usually young men from twenty to thirty years of age, married as well as single, and manifests itself by imperfect erections, and that frigidity which, by force of an immoderate ardor, seizes the individual even in the very lap of fruition, or, at best, when coition is attempted, an almost instantaneous ejaculation of semen, thus violating some one of the indispensable conditions for the perfection of the procreative act; namely, erection, intromission, and ejaculation.

Some years ago I was annoyed by the frequency of cases of this character, which I treated according to established rules—tonics, cauterization, etc.; but with no favorable results. The spermatic fluid could evidently be produced in abundance; for where a primary attempt was succeeded by premature discharge, a subsequent essay would terminate in a similar manner, to the complete disgust and intense mortification of the individual. I was struck by the circumstance that, in all cases the prepuce nearly, or entirely, covered the glans penis, and in some, indeed, there was phimosis. In the latter, supposing that perhaps the impotency depended upon the contraction preventing the proper filling with blood of the *corpora carernosa* and *corpus spongiosum*, I performed the operation of circumcision, and with the effect of restoring the virile power of the patient. In the cases of perfectly retractile prepuce, I determined to operate likewise, not indeed believing the exposure of the highly sensitive papillæ of the glans to the walls of the vagina caused the premature ejaculation; for my idea then was, that the internal layer of the prepuce, more delicate in structure than the walls of the vagina, so correctly adjusted and accurately imposed upon the sensitive papillæ of the glans, as to cause titillation and discharge by the very act of erection; and this I believe to be the frequent cause of nocturnal emissions.

The first case I operated upon proved, at least to my satisfaction, the truth of my reasoning.

A man of twenty-five years of age, who had been impotent for three years, applied to me for treatment. I circumcised him by the usual method, and, on the sixth day, removed the sutures, when, without my knowledge or consent, and notwithstanding the fact that the wound was not completely healed, he determined to experiment; and the next day came to my office with the skin torn from around the glans, and requiring to be re-stitched to heal by second intention. But he informed me that the adventure had been attended with complete success, and he did not care for the extra pain brought on by his importunate haste. My sympathy in his success made me lenient in my counsels. In his case it could not have been hardening of the glans, for the time was too short; besides, for six weeks after the operation, he was forced to keep the extremity of the penis covered with lint, so sensitive was it. Since inaugurating this treatment, I have operated on thirty-seven cases, all of them resulting favorably, always selecting such cases as, I suppose, have their origin in this difficulty. In two of the cases operated upon, the prepuce had been split upwards in one by a surgeon for phimosis; in the other, the same operation had been performed by striking against the pommel of a saddle. The majority of these cases had been the patients of several physicians, and, consequently, received the medication usual in such disease, but without avail.

Some Attempts at Human Anaplasia, by means of Mucous Grafts taken from the Cheeks and Tongues of Rabbits and Oxen.

BY DR. HOUZE DE L'AULNOIT, OF LILLE.—READ BEFORE THE ACADEMY OF MEDICINE OF PARIS.

(Translated from the French by MARY C. PUTNAM, M. D.)

My intention in this note is to call the attention of the Academy to the results that I have obtained in transplanting on man, pieces of mucous membrane taken from the buccal cavity of the rabbit and the ox. One of the prin-

cipal inconveniences of the human dermo-epidermic graft, as it has been employed by Reverdin (*Gaz. Med. de Strasbourg*, 1870; *Archives Gen. de Med.*, 1872), Ollier (*Gaz. Hebd.*, No. 8, 1872); L. Le Fort (*Gaz. Hebd.*, No. 9, 1872), Broca (Thése de M. Bercaru), Gosselin (ibid.), Demarquay (ibid.), Pollock, Nelson, Rouge, and Bercaru (Thése, August 7, 1872, Paris), is to cause pain to the patients by submitting them to a slight operation, without danger, it is true, but disagreeable enough to be refused by some, thus obliging the surgeon to take the grafts from his own person.

I had thought, then, since the month of November, 1871, of taking them from an animal, as had already been done by the advice of Bert (*Thése sur la Graffe, Animale*), Coze (Communication to the Institute, the 28th February, 1872,) who cut cutaneous grafts from a rabbit, and Debreuil, from Guinea-pigs. But in order to approach the physiological conditions of the human skin, I intended to make grafts from the mucous membrane of some animal. I communicated my idea, on the 30th of April, to Professor Verneuil, and, as I mentioned the rabbit among the animals most suited to this class of experiments, he advised me to choose a rabbit raised in the country, as offering more plasticity than those brought up in our great cities.

I began my experiments on the 1st of July, 1872, and I placed on several patients fourteen mucous grafts, coming either from the cheek or tongue of a rabbit.

Twice, moreover, I took grafts from the lingual mucous membrane of an ox, killed hardly an hour before. As the result was negative, I will pass over these two attempts in silence, and in this note only insist on the fourteen preceding experiments.

A few words on the method of operation I followed.

Before detaching the mucous membrane, I kill the animal by holding it by the hind legs, and striking it on the back of the neck; then, by means of two sections made with scissors, I remove the skin of the cheek, and dissect, with pincers and a bistoury, from its internal face, the piece of mucous membrane that should be applied to human tissues. The method of MM. Ollier and Reverdin, would cause less dragging on the parts, and be followed, I think, with similar results. It suffices to drag the tongue forwards, after having separated the maxillæ, in order to lift up the lingual mucous membrane, previously fastened on a piece of cork with some pins. I avoid as much as possible leaving any muscular tissue on its adherent face. These several grafts, divided into others smaller, from five millimetres to 2-3 centimetres, have been immobilized on

wounds, sometimes with bands of muslin covered with collodion at their internal face, or merely at their extremities, sometimes with cotton-wool slightly compressed by a few bands of diachylon. In some cases I tried covering them with oiled silk of very thin pieces of lead, at the same time applying a light and gentle compression.

Immobility is a condition, *sine qua non*, of success. It is impossible to insist too much on its advantages or inconveniences, according as one employs collodion, cotton, or diachylon strips. I propose in a forthcoming memoir to discuss these various methods of treatment. Perhaps it would be possible to fasten the grafts, when they are extensive, with some points of silk suture, made with very fine needles. The strips of diachylon, with or without cotton-wool, merit the preference when their application is possible, but on condition that one may rely on the docility of the patients, and that the tissues remain motionless, at least during the first days. It is because I did not take sufficiently into account these precepts and the state of the wounds—conditions which have only been revealed to me by experiments—that I have only succeeded five times; that four times I have had a doubtful adhesion; and that I have failed in the other five cases.

* * * * * * * * * *

Conclusions.—From these first experiments of animal anaplasty, by means of the lingual and buccal mucous membranes, I think I may deduce the following conclusions:

1. Mucous grafts taken from the cheek or tongue of the rabbit, like the dermo-epidermic grafts from the human skin, can take root in the human tissues.

2. They may be applied during the bleeding and granulating periods; never during the period of suppuration.

3. New researches are indispensable in order to learn the best method of immobilization, and the epoch at which the first dressing should be removed—epoch that I fix at the second or third day.

4. At the moment that vascular adhesions are formed, the epidermis separates, the dermis inflames, softens, disintegrates, loses its physiological properties, and becomes a true pathological tissue, having some resemblance to cicatricial tissue, but without the retractility. Microscopical examination indeed shows destruction of the grandular system.

5. Adhesion, in my fourteen experiments, only took place five times, and four times the result was doubtful.

6. Two attempts with the tongue of an ox were negative,

on account of the condition of the wound or nature of the dressing.

These researches, although extremely incomplete, will induce, I hope, physiologists and surgeons to have recourse to the mucous membrane of an animal; but I think that, in order to prevent reabsorption, it would be best to borrow as much as possible from an animal approaching the size of a man.—*Archives of Scient. and Pract. Med.*

The Science and Art of Healing Wounds.

Benjamin Richardson, M. D., F. R. S., read, at a meeting of the Medical Society of London, on the 29th of January, a paper on this subject, of which we find the following report in the *Southern Medical Record*, copied from THE LANCET:

After alluding to the diversity of opinion existing in the profession on the subject of treating wounded surfaces, Dr. Richardson illustrated from clinical observation, and then he put the inquiry—Why, if in one case of the extreme kind named there could be a cure by the first intention, there should not be such cure in the majority of cases—why, in short, should success by this method of cure be the exception instead of the rule? Two sets of causes stood in the way—one set remediable, and the other irremediable. The remediable obstacles to recovery by the first intention were—want of care in bringing divided surfaces into perfect apposition; the too free use of water in dressing; the too prolonged exposure of wounds to the air; too much manipulation of the surface of the wound; the leaving of long ligatures within the wound; the imperfect closure of wounds from air; the too hasty removal of dressings; and, lastly and most important of all, error of judgment on the part of the dresser in respect to the question whether there be, in the case to be treated, sufficient continuity of surface to warrant the attempt to heal by the first intention. The irremediable causes preventing healing by the first intention were—nervous lesions, influencing the vascular supply of the injured part; the accidental introduction into the wound of decomposing or other foreign matter, or the generation of organic poisonous product within the body. These cases lie apart from the science and art of dressing wounds, and may be left for a special and future discussion. For the promotion of healing by the first intention, the

author contended that the dressing employed should have four distinct qualities; it should be collodial, elastic, impermeable to air, and styptic.

Healing by the second intention formed the next part of Dr. Richardson's communication. Here again the rules named in relation to healing by the first intention were considered, and it was maintained that the same collodial dressing was as effective in curing by the secondary as by the primary process, the difference of application being that the whole of the exposed surface was to be treated with the collodial fluid. After giving a series of cases of rapid healing by the second intention, cases in some of which bone had been exposed, and even a joint laid open, and after touching briefly on the addition of iodine to collodial solution in some particular cases, the author placed before the Society a summary of his argument in a series of short propositions, and concluded by insisting that medical men live to cure all they can, and try to cure everything until they succeed, through whatever tribulations they may pass in the labor.

Advantages of Circumcision from a Surgical Point of View.

Dr. Cadell read a paper on this subject before the Med. Chirurg. Soc,, Edinburgh. He considered it in four aspects: 1. In infancy. 2. In boyhood. 3. In adult life. 4. In old age. He described:

1. The local and constitutional disturbance which may be set up by a long prepuce in infancy, and showed how these might be immediately relieved by circumcision. He read notes of a case, and also referred to those of Mr. Bryant, illustrating the effects of an adherent prepuce on the urinary organs, and the relief obtained by circumcision.

2. In boyhood, he believed that a long prepuce, by imprisoning the secretion from the glans, might be an exciting cause of masturbation; and if there was an hereditary disposition to nervous affections, epilepsy and insanity might be thereby induced.

3. In adult life, circumcision would facilitate cleanliness, diminish the secretion from the glans, so that the great cause of non-venereal excoriation would be removed, and thus render the mucous surface less susceptible to the venereal poison.

4. In old age, he cited Mr. Hey's opinion, that a congenital phimosis was an exciting cause of cancer in the penis.

In conclusion, Dr. Cadell remarked that he would strong-

ly recommend circumcision in boys between infancy and puberty, whenever a congenital phymosis caused them the slightest inconvenience.

Prof. Lister said the cases alluded to by Dr. Cadell, of irritation caused by adherent prepuce, must be admitted to be of great interest. They knew that where adhesion existed there was often an accumulation of secretion, and they could understand that to be a cause of irritation. He should like to have it clearly brought out how far the symptoms in these cases were attributable to that cause, as distinguished from mere length of the prepuce. Though all would allow that cases of phymosis ought to be subjected to operation, it ought to be considered whether circumcision was the best that could be done. The object could be obtained without mutilation. Mr. Jordan, of Birmingham, has written an interesting paper on the subject, showing that a perfectly natural condition of things might be obtained by the simple means of notching the ring of skin to the requisite extent, and then dividing the mucous membrane up to the *corona glandis*, and, avoiding all use of stitches, simply have the part drawn backwards and forwards twice every day. As regards the question of malignant disease, he might have been unfortunate, but he had now seen a large number of cases of cancer of the penis, not one of which was associated with the phymosis.

Dr. J. Bell said his experience in regard to circumcision was in cases of long standing, and perfectly incurable nocturnal enuresis by small children who were in the habit of wetting the bed. In as many as four or five cases he had succeeded in effecting a perfect cure, by simply removing the redundant portion of the prepuce. In one case, a very bad case, a poor little fellow made his water first in the prepuce, which was like an orange at the end, and then he got rid of the water by squeezing it with his hand, the water coming out by an small aperture. That case was in George Watson's Hospital, and it became a question with the managers how to provide the necessary bedding for the boy. The operation performed was very simple, and was a complete cure. He (Dr. Bell) had very little experience of adherent prepuce; cases of adhesion of the prepuce were not so common as those of long prepuce.

Dr. Halliday Douglas said, that several years ago he was waited upon by a gentleman who had been married a few days before, and who had failed to effect connection. He was laboring under a very tight phymosis. He had never experienced any inconvenience during his life of twenty-five or twenty-eight years. He (Dr. Douglas) transferred him to Mr. Syme's hands, and, within twelve months, there were twins

born to him. Another curious fact in this gentleman's history was this: In early life his brother has been relieved of phymosis, and three of his children, nephews of the first gentleman, had required to have the operation performed.

Dr. Watson was glad that the conclusion to which Dr. Cadell had arrived was, that where an elongated prepuce was a source of annoyance, it was right to relieve the person by removing it. As regarded the question of the comparative frequency of venereal complaints among persons who had been circumcised and those who had not, he might refer Dr. Cadell to a paper whi·h appeared in the *Medical Times and Gazette*, 1st of December, 1855, by Mr. J. Hutchinson, in which it was shown that at the Metropolitan Free Hospital, situated in the Jews' quarter, in London, in the year 1854, the proportion of Jews to Christians among the out-patients was as *one* to *three*—at the same time, the proportion of cases of syphilis in the former to the latter was only as *one* to *fifteen*. Yet, that this was not the result of any higher degree of morality on the part of the Jewish population was obvious, because fully one half of the cases of gonorrhœa occurred in Jews. This preventive influence of circumcision, as regards chancrous infection, led to hereditary syphilis being rarer among the children of Jews than of Christians. . . . . He was surprised that Dr. Cadell did not quote that greatest of all authorities on such matters, viz.: Dr. Ricord, who had said, in one of his published clinical lectures: "The prepuce is an appendix to the genital organs, the object of which I could never divine; instead of being of use, it leads to a great deal of inconvenience, and the Jews have acted kindly in circumcising their children, as it renders them free from one at least of the ills to which flesh is heir. The prepuce is, in fact, a superfluous piece of skin and mucous membrane which serves no other purpose than as a reservoir for the collection of filth, especially when individuals are inattentive to cleanliness." This was very strongly confirmatory of Dr. Cadell's views, though it appeared to Dr. Watson a little extreme.—*Edin. Med. Journal*, Feb., 1873.

Nocturnal Incontinence of Urine cured by Circumcision.

Dr. Joseph Bell communicated to the Med. Chir. Soc., of Edinburgh, a case of nocturnal incontinence of urine which had persisted for seven years, in which he had performed circumcision a month previously, since which the incontinence had entirely ceased. — *Edin. Med. Journal*, May, 1873.

Institutes and Practice of Medicine.

On the Use of Dry-Powdered Blood.

BY DR. DE PASCALE, OF NICE.

Several years ago I published from my experience and medical practice, some observations on the very beneficial effect of warm blood taken the moment when extracted from the calf or ox, killed for general domestic use.

I mentioned at that time the cases of three invalids, not English, suffering from hæmoptysis, in whom tubercules were diagnosticated, who derived great benefit from that treatment. The quantity of blood lost by one of the above mentioned invalids was enormous, but his perseverance for two years or more in drinking daily the blood, made him well and healthy. At this present time he is walking about Nice, or attending to the business of his large establishment.

I do not wish to dwell upon the great improvement in my own general health after drinking the warm blood for about a month. One of the English doctors practising in this place had the opportunity of verifying my improvement, and the experiment which I made, when in a state of general weakness and pallor, in consequence of suffering for many years from malarial fever taken during the seige of Venice in 1848 and 1849.

Every one knows the history of those barbarians, who were accustomed to drink the blood of their victims at a feast after their battles; and also of those who were supported by the blood of their companions, wrecked in the *Medusa* in 1807; and of others who have been nourished in the desert by the blood of animals.

Dioscorides affirms in *De Medicinali Materia*, that animal blood has been used for the purpose of curing diseases; the old women adopted a similar system.

Finding among the English and American patients in Nice an unconquerable repugnance to such a remedy, the name only having the power of producing nausea, I was obliged to disuse it. But afterwards a dim recollection of the manner in which it was administered by old medical men in my youth, made me adopt the plan of giving it in the form of dry powder.

History also relates that dry-powdered blood was used

before the thirteenth century, when the quack, Jean de Gaddesden, brought it into renown.

It is easy to understand the comparative difference between the warm and the dry blood. In the first there is life with animal heat, and volatile principles, which conduce to assimilation. Notwithstanding, in the dry blood, fibrin, albumin, hæmatozin, manganesic and ferruginous salts remain.

Between the seventeenth and eighteenth centuries, the celebrated anatomist of that day (F. Buischio) found in the blood the necessary elements for the composition of every tissue of our body. At the end of the seventeenth century also, was discovered one of the most important principles of the blood—that is iron, by M. Lamey, and afterwards by Berzelius. According to Berzelius, a distinguished professor of chemistry, the blood of the ox is almost similar to that of man; this, in fact, I have used in several cases of general weakness with anæmia, and in cases of chlorosis.

The blood of the ox, after being dried in a water-bath, is reduced into a very fine powder, and grated through a sieve. Dry blood can be taken for any length of time, being almost tasteless, and no repugnance is likely to be felt, as is often the case with raw meat. It can be taken as any common powder, mixed with soups, milk, marmalade, chocolate, or enclosed in a wafer.

In two cases I have given the powdered blood under the name of nutritive powders, mixed with a small quantity of pepsin; choosing that name lest ladies, startled by one more precise, might have difficulty in taking the medicine.

The quantity to be taken may vary according to the age, sex, or the state of health and digestive power of the patient. In general, I begin with thirty grains, which is increased according to circumstances; but quantity must be left to the discretion of the physician who prescribes.—*Med. Press and Circ., London, Jan.* 29, 1873.

The Pulse in Childhood.

Mere irregularity in pulse is absolutely of no value as a means of diagnosis. In any ferible attack the pulse of a young child may become irregular; indeed, in many cases the mere quickening of the heart's action seems to lessen the regularity of its contractions. But while a *quick* irregular pulse is of little consequence, a *slow* irregular pulse carries a far different meaning, and, if suspicions of tubercular meningitis have been already excited, will go far to convert those suspicions into certainty.—*Med. Times and Gazette.*

Effects of Compressed Air.

Dr. Etheridge, in a lecture published in the *Chicago Medical Journal*, gives some interesting details of experiments with compressed air. Patient is placed in an air-tight bell, and the air pumped in gradually till the necessary compression is obtained. Among the effects noticed are:

1. The respirations become slower, longer, and connected with a sensation of easiness.
2. There is an unusual completeness of the capillary circulation, and a decrease of the heart pulsations.
3. The power of the entire muscular system is increased.
4. Digestion is improved in every respect.
5. Urine is increased in quantity, sulphates are increased, and phosphates continually decrease till they disappear.
6. The weight is invariably increased by the prolonged use of the baths. In one case it is increased eight pounds in thirty-eight days. In another, ten pounds were gained in twenty-one days. From these facts it is apparent that nutrition is made more normal and better by an increased capillary movement. It has proved beneficial in catarrhal deafness, laryngitis, chronic bronchitis. In convalescence, in diseases of the lung—parenchyma, tuberculosis of lung, etc.—we judge that its effects are very similar to those of pure oxygen, and produced in the same manner.

Chlorate of Potassa in Bowel Complaints.

ALFRED S. GATES, M. D., of Franklin Parish, St. Mary's, La., in a communication to us, extols the efficacy of chlorate of potassa in diarrhœa, especially that occurring as a sequela of measles. He writes: "My own child, *aet.* 18 months, after an attack of measles, suffered from dysentery; passages occurring every hour or two, which persisted for a month without any relief from the accepted remedies. In my extremity I mentioned the case to a medical friend, who advised me to use the chlorate of potassa in gr. iv doses every two hours; accordingly I prescribed: ℞. Potass. chlor. gr. xxxij, syr. simp. ℥ss, aq. pur. ℥ss, and gave as directed. After the third dose the character of the discharges was completely changed, the blood and mucus disappeared, and the child made a rapid recovery.

"Measles being epidemic, I saw several other cases with

identical symptoms following desquamation. In every case the sufferers were relieved by the remedy. Meeting with success, I determined to give it a fair trial in cases which West, in his "Diseases of Children," calls inflammatory diarrhœa. It fully and completely realized my expectations. I have also used it in the dysentery of adults, though with no such decided success as in the above-mentioned cases; though I have reason to suppose that in two cases, in which my faith was shaken, the directions were not followed with any attempt at regularity."—*American Journal of Med. Sciences.*

Leprosy in the West Indies.

The subject of leprosy in the West Indies, though it has, perhaps, excited less attention than in the East, has always been looked upon with interest—an interest which the reported cures of what was considered an incurable disease by Dr. Beauperthuy by no means served to lessen. Dr. Gavin Milroy, at the suggestion of the Royal College of Physicians, was sent out by the Colonial Government; and it is from his report, which now lies before us, that we extract the subject of this notice.

Dr. Milroy appears to have first of all visited British Guiana, near the capital of which is situated the principal leper-asylum in the colony. This, at the time of visitation, contained two hundred and six patients, in all stages of the malady. Most of these were colored, only one European being found among them, and his case was a doubtful one. The facts here collected tended to establish the belief, already generally entertained, that the disease is not transmissible by ordinary infection. Leprous patients continue to sleep with those who are sound, and even sexual intercourse seems to have no power of communicating the complaint. Hence, the belief that it arises from causes dependent on climate or food; and the belief has long prevailed that the extensive use of poor food, especially salted fish, in these parts, had something to do with its continuance and spread.

The forms of leprosy seen were of the tuberculated and non-tuberculated kind. In some the anæsthesia had been so strongly marked as to occasion injury to the hands in cooking their victuals, no intelligence being conveyed of the sensation of over-heat even by the burned fingers. Most of the cases seen under the care of Dr. Beauperthuy

were in the earlier stages; those well advanced were rejected as unfit for treatment. Dr. Milroy in his inquiries was strongly impressed with the view that in many respects leprosy and scrofula were closely allied, and this idea was strengthened on finding that in both Guiana and the West Indies leprosy went by the name of "king's evil"—the old nome for scrufula in this country. In both there is marked want of "power" or "tone," with feeble action of the heart, and an exsanguine condition of the body. The ulcers, too, resemble those found in scrufulous subjects, and the well-known enlargement of the lymphatic glands in leprosy would probably be considered another point of resemblance. At the same, the spread of scrufulous diseases in Demerara and the West Indies has recently been marked as decidedly on the increase.

Naturally, one of the most important inquiries we can make is as to the contagious character of the malady. On this point a aufficiently large accumulation of evidence has been made to enable us to come to some conclusion. It is true that in many parts of the West Indies and in Guiana the belief in the possibility of transmitting leprosy from one individual to another has been entertained; but a strict examination into circumstances tends clearly to the opposite belief. True, certain isolated cases have occurred where direct transmission may have been possible; but the mass of evidence undoubtedly goes to show that leprosy is not capable of communication even by sexual intercourse. It has been supposed that the inoculation of the blood of leprous patients might be capable of transmitting the malady; but in the case of a medical practitioner who cut his finger in an operation on a leprous subject, no such unfortunate results followed. He was unable to attend to his wound for a time, and, apparently as a consequence of this, erysipelas and destruction of the parts followed, so that the finger had to be removed; but no constitutional evil resulted.

But, if not contagious, how is the malady spread? On that, too, there seems a singular unanimity of opinion, if we may judge by Dr. Milroy's report. If not entirely caused, the malady is greatly favored, by the bad food and unhygienic condition of the lower orders, among whom the disease almost entirely prevails. In Demerara the aboriginal inhabitants, who lead healthier lives than the imported negroes, coolies, or the lower classes of the Creoles, do not suffer. Everywhere in these regions the diet of the poor seems to consist mainly of salted fish—at no time a nutritious kind of food, and even then often inferior in quality.

Some times a little salted beef or pork is added in the form of soup, but fresh meat is rarely, if ever, tasted. As the salt fish can only be looked upon in the light of a condiment to flavor the other constituents of diet, the negroes seem to favor the highest-flavored—*i. e.*, the worst—varieties; though when they get the chance they are greedy after fresh meat. Invariably leprosy seems to be fostered in its onward progress by bad food, and retarded by better quality of diet. However, as matters now stand, there seems to be a difficulty in getting meat in the fresh condition. Sheep are imported into Guiana from New York or Boston, cattle from the Orinoco. Some are raised in Porto Rico, and many more might be so in Dominica. Meanwhile, the business seems neglected, and the poor suffer in consequence. For the same reason milk is not readily attainable; and even the substitution of fresh fish for salt, though apparently easy, is not much carried out.

One great object of Dr. Milroy's mission was an inquiry into the possibility of curing this malady on the plan proposed by Dr. Beauperthuy. This gentleman founded his treatment essentially on the principles already laid down as to the causation of the disease. The first thing to be done was to improve the dietary. Whenever the food has been improved, the lepers have improved also, and this, too, without any other medicines being employed. For the means of making such an improvement, Dr. Beauperthuy stipulated when he took charge of the trial made in Guiana. Internally he gave one-eighth of a grain of corrosive sublimate twice a day, sometimes with a dose of carbonate of soda, and this was continued until the mercury began to show its constitutional effects, when it was replaced by quinine, and later by iodide of potassium. Unfortunately, Dr. Beauperthuy did not live to complete his work, which he seems always to have considered experimental, and not final, so that even his final conclusions were of necessity imperfect. Locally he employed almost solely cashew-nut oil, which was applied to the tubercles or anæsthetic spots. This oil is a powerful counter-irritant, and may give sharp pain. By it the epidermis is removed, and to the raw surface strong lime-juice is applied. This plan of treatment, according to Dr. Milroy, is decidedly encouraging. By it tubercles are removed, and anæsthetic spots rendered sensitive. Dr. Milroy, however, decidedly objects to the too prolonged use of mercury internally. Dr. Beauperthuy is no more; but his good deeds live after him, and we cordially endorse Dr. Milroy's warm praise of a man who devoted so much pains to assist a class so proverbially outcast as the leprous.—*Medical Times and Gazette*, May 31.

Tar in Skin Diseases.

Dr. Bulkley, of New York, writes that the use of tar in skin diseases dates as far back as the time of Hippocrates, and that it was used by Pliny, Dioscorides, Galen and others. It then fell into disuse till it was again recommended in modern times by Cullen, Willan, and Bateman. The tar employed in medicine is commonly that derived from wood, and its varietes are the common wood tar, the oil of tar, the oleum cadini, the oleum rusci, and the oleum fagi. Ordinary wood tar is obtained from the slow combustion of several species of the Pinus and Abies; oleum cadini comes from the *Juniperus Oxycedrus*, and is manufactured in the South of France; oleum rusci is the oil of the birch (*Betula alba*). The pharmaceutical preparation of tar of oldest date is the unguentum picis liquidæ, made by melting together equal parts of tar and suet. Dr. Bulkley has used the ung. picis liquidæ with good effect in scaly eczema, also in two cases of non-specific palmar psoriasis, combined with sulphur ointment in each instance. When nicely prepared, and fresh, it is not an unpleasant application—very decidedly stimulant, and is especially applicable to ill-conditioned ulcers of the lower extremities. Tar is sometimes employed pure, applied directly to the skin alone, or diluted one half with olive or cod-liver oil. Hebra freqently directs a bath of an hour or two, while the parts are covered with tar or its oils. As applied in Vienna, the patient, after tarring, lies between blankets completely naked, or sometimes underclothing of pure wool may be put on, and the patient attend to business. Starch may be dusted on to hasten the drying. In applying tar and its preparations, more is to be expected from an energetic friction at the time with a reasonably stiff brush or flannel than from a great expenditure of the substance used. Ill effects sometimes follow its use. It may produce an acute eczema, some skins not tolerating the substance at all; while in others an acne is developed from closure and irritation of the sebaceous orifices. Occasionally high fever, fullness and pain in the head, pain in the stomach, vomiting of a blackish fluid, together with dark-colored fæcal evacuations and urine, occur. A French secret remedy, "Goudron de Guyot," is a pleasant mode of applying it. An exact imitation of this preparation, in which the odor of the tar is pleasantly masked, is found in the following prescription:

Picis liquidæ ʒij.
Potassæ causticæ ʒj.
Aquæ ℥v. M. ft. sol.

It has the advantage of being easily removed with water. Dr. Bulkley praises highly Hebra's tinctura saponis cum pice, than which, he says, nothing is more successful in allaying a raging pruritus. Tar fulfills three indications: (1) it checks irritation and relieves itching; (2) it checks secretion or diminishes the formation of scales; and (3) it improves nutrition or removes cell deposit. The first and last of these are intimately united, the first being frequently dependent on the last, as in true prurigo, when the papules give riso to the itching by the cell-pressure on the nerve termini; a condition seen also in chronic eczema. Tar is unsuited to cases of chronic psoriasis, where the skin is cracked or excoriated, producing too much irritation, though it is very useful in quiescent cases. In like manner, whilst valuable in mild eczema, it is inappropriate where there is much heat and inflammatory swelling. It is often very serviceable in lupus erythematosus, and in the vegetable parasitic diseases.—*Brown-Sequard's Archives of Scientific and Practical Medicine*, No. 2, 1873.

Pathogenic Influence on the Skin of Bromide of Potassium given Internally.

DR. J. NEUMANN has investigated this subject. He refers to the observations of Voisin, of Paris, and Mitchell, of Philadelphia, according to whom the employment of bromide of potassium in weak doses brings on eruptions similar to acne, with itching and the consecutive formation of indurated tubercles; whilst the prolonged use of the substance gives rise to the production of red tumors, which often become sore, of carbuncles, anthrax, eczema, and nettle-rash. Dr. Neumann states that, for his own part, he has observed eruptions very much like molluscoid acne coming on in successive outbreaks, and, in another case, a carbuncular eruption consisting of infiltrated tumors, with considerable loss of substance in the centre. The author inclines to think that the bromide passes into the blood, and thence into the various glands of the skin, and he accounts thus for the production of the eruption. It is known that the presence of bromide of potassium has been observed in the urine, saliva, and the secretions of the skin.—*Lancet*, May 10, 1873, from *Wiener Med. Wochenschrift*, No. 6, 1873.

Constitutional Forms of Eczema.

Dr. E. Mapother, in a paper read before the Surgery Society of Ireland, observed that if the interest attaching to a disease be proportional to its frequency, eczema is most worthy of attention, for one third of skin diseases are forms of this malady.

The causes and treatment of those forms due to sources of local irritation are thoroughly understood ; for example, those due to the action of the alkalies in washerwomen, sugar mites in grocers, the flow of tears from strumous eyes, the gravitation of the blood in varicose veins, are cured by the removal of the exciting cause and some emollient application, of which bran stupes and bran poultices are the best.

When eczema, on the contrary, affects large surfaces of the body without any local irritation, is symmetrical, apt to relapse, and (as is frequently the case) traceable in several members of the same family, some constitutional cause evidently exists, and should be sought for, if we wish to treat the disease scientifically. The French call this cause "the dartrous diathesis," *dartre* being a popular term synonymous with "heat in the blood" in our vernacular ; they confess ignorance of its nature, and only recognize it by aptness for relapse in eczema and lichen, and psoriasis as well. Dr. Mapother has long been inclined to hold with Golding Bird that excess of uric acid in the blood is this constitutional cause. Dr. Bird says : "I have been two or three times consulted in the cases of patients lying bed-ridden from rheumatic gout, in whom one or both legs were covered with an eczematous eruption, and the parts on which the exudation from the surface had dried had been actually frosted with microscopic crystals of urate of soda."

The following facts seem to him to prove that the gout poison is the cause of eczema :

1. Many reliable observers have obtained uric acid and urates from the exudation of eczema, and their increase in the urine in the chronic stage of each disease is undoubted.

2. There is a great increase of fibrin in the blood, and it exudes and spontaneously coagulates on the raw surface.

3. Both diseases are characterized by great tendency to œdema and desquamation, which latter, of course, is universal in eczema, and occurs in three fourths of the cases of gout when localized.

4. Gout can be shown to be hereditary in about three fifths of the cases, and such predisposition can be shown in about an equal proportion of cases of general eczema. The

greater proneness of the male sex is observable in both diseases.

5. Everyone must have remarked the frequent consequence of symptoms of gout or of rheumatic gout and eczema. The Chelsea pensioners and the poorer agricultural people of this country exhibit this concurrence on the largest scale. I have seen very few cases of general eczema which had not been preceded or accompanied by what is so well known as acid or gouty dyspepsia.

6. It is an aphorism of Hippocrates that gouty attacks are most frequent in spring and autumn, and the same may be undoubtedly said of eczema.

7. The parts most distant from the circulatory force of the heart and least vascular—for example, the extremities and ears—are the most frequent seats of each disease, as the urates are most easily deposited.

8. And lastly, the treatment proven to be useful in gout is usually successful in eczema.

Lithia, Dr. Mapother has found of greatest use, as would be anticipated from its extraordinary powers of combining and dissolving with urate of soda and uric acid. It never fails to act as a diuretic, and the derivative influence from the skin to the more extensive surface of the kidney can be easily understood.

Dr. Mapother usually combines colchicum with lithia.

It would appear that colchicum has no power of increasing the excretion of the solids of urine, but it is now generally believed to check the formation of urea and uric acid, a fact anticipated by the sagacity of Dr. Graves, whose physiological deductions were so remarkable.

In inveterate cases of eczema arsenic may be necessary, and that metalloid is of great repute in chronic gouty and rheumatic affections.

Lastly, sulphur internally and externally, especially when used in the waters of Harrogate, Leuk in Switzerland, and Lisdunvarna, nearer home, is of equal efficacy in gouty and eczematous affections.

A few words about external treatment. Carbolic acid diluted with seven parts of lard keeps the skin pliable, prevents suppuration and fœtor, and has probably some astringent power. In cases of universal eczema, which are rare, starch baths, or, still better, bran baths, are called for, to check the excessive cutaneous transpiration.

Dr. Mapother strives to show that constitutional eczema depends on the gouty diathesis, and should be treated according to the well-known therapeutic conditions observed in that condition. *Medical Press and Circular*, Feb. 19, 1873.

New Treatment of Syphilis.

M. Staub has lately suggested a new fluid, which possesses various advantages over a simple solution of corrosive sublimate, where the hypodermic injection of this salt is required, and of which the following is the formula:

Bichloride of mercury, gram. 1.25.
Hydrochlorate of ammonia, gram. 1.25.
Chloride of sodium, gram. 4.15.
Distilled water, ccm. 125.00.
Dissolve and filter.

One gramme of this liquid (fifteen minims), or about an ordinary Pravaz' syringeful, contains exactly five milligrammes of sublimate. The pain produced by this fluid is much less than with pure solution of corrosive sublimate, but where the patient is hypersensitive, a small quantity of a solution of hydrochlorate of morphia may be added to the extent of about two and a half milligrammes per gramme. The average dose injected is about one centigramme of the sublimate *per diem*, in two injections. In severe cases, two or three centigrammes may be injected; in newborn children, two milligrammes is sufficient. M. Staub states that he is indebted for this formula to M. Hepp, the late regretted chief dispenser of the hospital at Strasburg, and recommends that the injection should be made on the inner surface of the arm or of the thigh, on the buttock, or in the back below the angle of the scapula, but never in the forearm or leg, where it produces swelling and severe pain, which sometimes lasts for several hours. It is highly important that a perfectly clear and transparent solution should be used, and it is prudent to filter just before injection, and to take care that the fluid enters completely into the meshes of the connective tissue. Lastly, the injection should be made very gently, so that the least injury to the connective tissue fibres should be avoided. (*Gazette Med. de Strasbourg*, 1872, and *Bulletin Generale de Therapeutique*, No. 6, 1873.)

Radical Cure of Fistula in Ano.

Dr. Hute recommends the injection of a solution of iodine in ether instead of the ordinary tincture of iodine, on the ground that the ether, being more volatile, escapes more rapidly, leaving the walls of the fistula in contact with pure iodyne. The reaction is insignificant, and there is no occasion for the patient to keep his bed.—*Le Mouvement Medicale.*

Gynecology and Diseases of Children.

S. F. Female Hospital Clinic. Extraction of a large Fibroid Tumor. Inversion of the Uterus. Recovery.

BY C. T. DEANE, M. D., PROF. DISEASES OF WOMEN AND CHILDREN, UNIVERSITY OF CALIFORNIA.

Mary Martin, age 27; unmarried. Entered S. F. Female Hospital, Nov. 1st, 1872. Examination Nov. 3d. Hymen intact; os uteri about the size of a ten cent piece, with a fibroid tumor presenting; sound cannot be passed between the tumor and the walls of the uterus; abdomen very much enlarged, about the size of a woman at fifth month of pregnancy; umbilicus protruding. Frequent and extensive hemorrhages very difficult to check. Diagnosis: Intra-Mural Tumor of Uterus.

Nov. 9. Resolving to try to test the hypodermic use of ergotine, its efficacy in controlling uterine hemorrhage and causing the absorption of the tumor, as advanced by Prof. Hildebrand, of Königsberg (*American Journal of Medical Sciences*, Oct. 1872), I prepared the following mixture: Ext. Ergot 3 parts, Glycerine 7 parts, Aqua distil. 7 parts. Introduced the needle deeply into the muscular tissues of the abdomen, over the seat of the tumor at its most prominent part, and injected gtt. xx; it caused but little pain, and was followed by no unpleasant results.

Injections continued every morning until Nov. 26, when she menstruated. Dec. 1st commenced injection of ergot again, continuing until Dec. 24. Pain not near so severe during menstruation as formerly; says she has not felt so well for months; appetite moderate. Dec. 25 menstruated again, second time since commencing ergot injections. Menses continued until Jan. 2. Resumed injections Jan. 3. Jan. 11 tumor appears to be decreasing in size, and patient says the abdomen is smaller than it has been for years; have continued injections since last report. Jan.

62 menstruated; injections discontinued. Feb. 3 recommenced injections, and continued daily until Feb. 20, when the menses appeared again for the fourth time. Feb. 28 continue injection daily; March 18 menses appeared; discontinue until well. March 23 continue injection. April 15 unwell again, sixth time since commencing injections. Ceased at this time any further injections of ergot, as I feared they might produce abscess. June 1 placed the patient under chloroform, and divided the cervix with a pair of curved scissors laterally, thereby making two flaps as high up as vaginal walls; passed the hand into the vagina and broke up the adhesions existing between the uterus and tumor as high up as the pedicle, which is situated in the fundus or dome of the uterus—pedicle about two inches in diameter—passed a wire round the pedicle and broke two in this way. I then passed a piano wire round it, but it snapped also. As the patient had been under chloroform for over an hour, and was losing a large quantity of blood, I injected the uterus between the tumor and walls of that organ with a solution of ferri per-sulphatis, which arrested the bleeding immediately, and removed her to her bed; administered one half grain morphia and brandy *ad libitum.*

June 2. Pulse 126; mind wandering; continue brandy.

June 3. Pulse 120; rational; continue brandy; a slight discharge.

June 4. Discharge continues; ordered injection of solution of carbolic acid in vagina three times a day.

The injections of carbolic acid were continued until July 1, when, the pulse continuing over 100, I determined on finishing the operation. The patient was carried into the operating room, and a pair of very small obstetric forceps applied, and the tumor forcibly drawn outside the vagina, the uterus also descending by inversion, and the tumor cut away and the uterus returned immediately.

July 2. Pulse 90; patient doing well.

July 3. Pulse 88; patient very comfortable.

July 20. Patient has continued to improve and is now sitting up. The tumor weighs 32 ounces, measures at its lowest portion 7 inches, and is 5 inches in diameter.

REMARKS.—This case teaches us two things: first, that hemorrhage from a foreign body in the uterus can be controlled by the hypodermic injection of ergot, she never having had one after the first injection; that they may be continued for an indefinite period without doing any injury; that large tumors of this class may be extracted forcibly; and that the inverted uterus may be returned immediately, without trouble or danger to the patient. The manner of getting at the tumor by slitting the cervix up to the vaginal walls is preferable to dilatation, being a gain of time, besides giving the tumor a chance to descend into the vagina, as it did in this case.

Clinical Lecture on Ovarian Cyst.

BY T. GALLIARD THOMAS, M. D., NEW YORK.

The first case, gentlemen, which I show you to-day, is in the person of Miss S———, *æt.* 23, born in the United States, and single. She says she has been sick during the last year. The chief symptoms from which she has suffered are pain in the side, pain in the back, and pain down the thighs. She has also had a burning pain in the left inguinal region; suffered from general debility, vomiting, palpitation of the heart, and pain in the head. She has been perfectly regular with regard to her monthly periods. Previous to last year she was in ordinary health, although always delicate, but thinks that within the past year she has emaciated a very little. There is one other symptom which the patient neglects to give us, and which is decidedly important, namely, the presence in the abdominal cavity of a large tumor. This enlargement of the abdomen was first noticed in the early part of last year, and now it has advanced to such an extent that it is the source of great discomfort.

Physical Examination.—The first thing that meets our eye, as the abdomen is exposed, is the presence of a large protuberant mass filling the abdominal cavity generally and symmetrically. The next step to be taken in the consideration at the case is to determine, if possible, what the nature of this mass is; whether it is the cause of the symptoms of

which the patient complains, and whether it is concerned in the diagnosis or not. When you approach such a case as this, it is always well to run over in your mind the pathological states which may give rise to such a condition as we have here. This is important, not only in this case, but whenever you approach a diagnosis at all, it is well to inquire what are the causes that may give rise to the existing condition, whatever that may be.

For example, when you are called upon to visit a case of supposed ordinary colic, do not give a dose of opium simply, without determining, if possible, what the pain may be dependent upon, for it may be produced by the passage of a gall-stone; and in that case your diagnosis would not be ordinary colic, but passage of a gall-stone, the term colic expressing but a single symptom.

These remarks apply to the study of abdominal tumors of the female, because it is one of the most intricate subjects you will have to deal with in the whole department of gynæcological science. In connection with this class of diseases, very many mistakes are made, and often made by pure carelessness upon the part of physicians who have them under observation. Even to-day, coming in contact as I do almost daily with this class of diseases, I find that the only method of examination which gives me a fair chance of avoiding errors in diagnosis, is first to go over every case in the same manner as I shall go over this case with you. Let us therefore inquire what are the conditions that may cause enlargement of the abdomen in any case.

(1.) The first cause which we will mention is *tympanites*. In a hysterical woman an immense amount of air will sometimes collect in the intestinal canal. These are the cases in which we have those phantom tumors, by which many a man has been deceived. So great has been the deception and mistake in these cases that experienced operators have cut into the abdominal cavity with the unfortunate result of giving ocular demonstration of the presence of a gaseous collection, instead of the presence of an ovarian tumor.

(2.) Ascites may produce an enlargement of the abdomen, and this woman may have cirrhosis of the liver, which has given rise to such an accumulation of fluid.

(3.) Utero-gestation may cause such an enlargement, and there are several reasons for suspecting that this is the cause in the present case. All the gastric symptoms of which she complains could be very easily explained by that condition, and the general depreciation of strength might depend upon the mental state easily induced in an unmarried girl under the apprehension that she was pregnant.

(4.) It may be a uterine fibroid, which has been growing for a year, and such a tumor would produce very much the same symptoms as we have present in this case.

(5.) It may be a solid ovarian tumor; and, *lastly*, it may be an ovarian cyst or dropsy.

There are a few other conditions which might cause enlargement of the abdomen, such as cancerous affection of a portion of the omentum, hydatids of the liver, etc.; but such cases are so rare that I deem it hardly necessary to mention them in connection with this case. Ordinary enlargement of the liver and spleen could hardly lead into error, if existing alone; but they might do so if they existed in connection with ascites. What we wish to study now, however, is the conditions which might produce just this kind of protuberant, symmetrical enlargement of the abdomen, and ordinary enlargement of the spleen and liver do not do this.

Let us now return and consider, *seriatim*, the causes which have been written upon the blackboard.

(1.) If this tumor is due to tympanites, we shall obtain a resonant sound upon percussion. The percussion note in this case is dull. An additional precaution, however, is necessary; for in those phantom tumors of which I spoke a few moments ago, there is sometimes such a rigidity of the muscles, produced by contraction, that the resonance upon percussion can scarcely be obtained. Under such circumstances the administration of an anæsthetic will dissolve the tumor and your diagnosis will be made at once.

(2.) If this is due to ascites, depending upon cirrhosis of the liver, the liver will be diminished in size, the intestines will be upon the surface of the fluid, and there will be resonance upon percussion over the surface of the tumor, above the level of the fluid. We have, however, just determined that there is dullness over the surface of this tumor upon percussion. Again, if this were ascites, we could, by palpation, get the sensation of a wave communicated to the hand through the abdominal walls; but nothing of this kind can be obtained here. The age and appearance of the woman are both against cirrhosis, the liver is not diminished in size (this being in a great majority of cases the cause of ascites), and we may therefore safely exclude that cause for this enlargement.

(3.) We can exclude utero-gestation in this case at once, for the following reasons: The uterus is of normal size, and there are no signs whatever of the presence of a fœtus upon auscultation. Many a practitioner has made an error upon this point of differentiation simply because he has not taken suffi-

cient care in making out his diagnosis, and the result of such an error you can easily appreciate. There is one way to determine whether utero-gestation is present or not in such a case as this, which is very simple and very satisfactory. Dip the hands in ice-cold water, and immediately lay them upon the surface of the abdomen, and within a period of time varying from five to thirty minutes your senses will convince you, unless life has become extinct in the fœtus.

(4.) This tumor is not a uterine-fibroid, because it is not solid. You determine whether it is solid or not in just the same way you would determine whether any inanimate object is solid or not—rely upon your senses. Perhaps, however, you may be a little in doubt, and if you are, do what has been done in the case before us now; tap the tumor with an ordinary hypodermic syringe, and draw out some of the fluid, if any fluid is present. The operation is almost painless, is harmless, and is a most excellent adjuvant in making out a diagnosis. In this case we have drawn out a clear fluid, like Croton water, and we may safely exclude the uterine-fibroid.

(5.) This tumor is not a solid tumor of the ovary, because it has just been determined that it contained fluid. In the manner in which we have proceeded with our investigation, it will be seen that the only cause left which would produce such an enlargement of the abdomen as we have here, is ovarian cyst, or dropsy. With proper care in examination, it could hardly be possible to make errors in diagnosis with regard to enlargements of the liver and spleen, even though they may be associated with ascites; yet they may lead into error, and so will the conditions which have been mentioned as probable causes, when proper care is not taken. This tumor is probably not due to hydatids, because the character of the fluid obtained by tapping is not that of a hydatid cyst.

Her appearance clearly indicates that she has no malignant disease.

We come now to look for the positive signs that we have to deal with in a case of ovarian dropsy.

There are no intestines over this tumor, because the ovarian tumor rises up and pushes them away. The resonance therefore will be obtained upon the sides of the tumor.

The fluid drawn is another reason for believing it to be an ovarian cyst, and that makes the diagnosis complete.

Prognosis.—From 6 to 8 out of 10 such cases as this are cured. This proposition, however, represents no man's experience in connection with ovarian tumors, unless he has

had this class of cases to deal with exclusively. The favorableness of prognosis in this case is based upon the rapidity of its growth, the clear water-like contents, and the trifling effect that it has had upon the patient's general health.

The treatment is summed up in one word, and that is ovariotomy. Paracentesis is not advisable, for a large number die as a result of the operation. When an ovarian cyst is tapped, two openings are made, one through the peritoneum and the other through the walls of the cyst; the result of that is that some of the fluid may, and probably will, flow out of the cyst into the peritoneal cavity, and give rise to peritonitis or septicæmia. It is the formation of this *double opening* that constitutes the essential difference between the tapping of an ovarian cyst, and tapping for the removal of fluid accumulated in the abdominal cavity from other causes.

This, gentlemen, is the method I pursue in the examination of every case of abdominal tumor I am called upon to examine, and I believe you will find it of practical service in your future careers.—*Am. Journal of Obstetrics.*

Retroflexion of the Uterus a Frequent Cause of Abortion.

J. J. Phillips, M. D., remarks, in the Transactions of the Obstetrical Society of London, that numerous observations had convinced him that the chief cause of frequent abortion, was a displacement of the uterus backward.

"It is not very uncommon to notice the ascent above the pelvic brim about the third or fourth month of a previously retroflected uterus, especially when certain precautions are observed by the patient, and indeed occasionally under conditions apparently most unfavorable for its restitution. Nevertheless, making due allowance for cases terminating thus favorably, retroflexion of the uterus appears to be so efficient a predisposing cause of abortion that it should occupy a leading position in an enumeration of the local disorders tending to the production of this accident.

"A not unimportant factor in the production of abortion may be found in the interference with the uterine circulation in some cases of marked retroflexion, tending to the effusion of blood between the uterus and the placenta, and this in its turn exciting uterine action, or leading to the death of the ovum."

CASE 1. "Age 30, six abortions between end of second

and end of third month, in three years; uterus found retroflexed; Hodge's pessary employed; woman became again pregnant; pessary worn until end of sixth month; patient delivered at full term.

CASE 2. "Age 35, mother of six children at term; aborted twice in one year, tenth week; uterus larger than natural and retroflexed; treatment and result as in the former instance."

Where pregnancy has occurred before the commencement of treatment, the author recommends the resort to a horizontal position either upon the face or side, and attention to the bladder and rectum.

The presentation of this paper gave rise to a very long discussion, the general opinion being in concurrence with the views of the author, both as to cause and treatment.—*Am. Journal of Med. Science.*

Dysmenorrhoea Cured.

B. B. Mohun Sircar, L. M. S. relates (*Indian Med. Gaz.*, April 1, 1873), three cases of dysmenorrhœa successfully treated by the *Abroma augustum*. The root, he says, are the officinal part of the plant; they are covered with thick, fleshy, easily-separable bark, rich with a viscid white fluid which contains the active principles of the plant. Mr. S. politely offers to supply a packet of the drug for trial to any of his professional brethren.

The first case was a lady, æt. 23, who had suffered from dysmenorrhœa for the last eight years. Each catamenia was accompanied with severe pain, continuing for three or four days. The discharge was scanty and dark-colored. She had a child when 15 years of age. She took the first dose of olutkombol early in September last, and continued it for seven days successively, from the first day of the appearance of the menses. The pain became much less than on previous occasions. On the menses appearing the next month, though not attended with pain, she took the medicine as before; she subsequently became pregnant.

——, aged 16, suffered from painful menstruation from the beginning of her puberty. Born of wealthy parents, she had the advantage of various sorts of treatment, but none proved efficacious. In the month of August, 1868, fresh roots of the olutkombol, in half drachm doses, were administered for seven days during the period of the menses. No catamenia appeared; the next month she became *enceinte*,

and in due time gave birth to a healthy child. Since then her menses are quite normal.

——, aged 26, mother of two children. In her 20th year, her menses became irregular and painful. She suffered in this way for nearly four years. In 1868, she took olutkombol, got rid of her pains, and conceived; but she aborted on the sixth month. The menses were again painful, and olutkombol was re-administered in 1870. She again conceived, and is now the mother of a boy nearly two years old.

Case of Resuscitation.

Dr. J. Marshall, of Limerick, gives the details of an interesting case, which demonstrates the value of artificial respiration even in cases that appear to be nearly hopeless. Dr. Marshall was sent for to attend a woman in her third pregnancy. She had been "attended" up to the time of her admission into hospital by an ignorant midwife. On examination, he found the right arm and funis (pulsating) in the vagina, and having returned the funis, he "turned" and delivered the patient of an apparently lifeless male child, so much so, indeed, that the funis was divided, without ligature, to see if any blood would escape from the child, the placenta having been born with the head. Not a drop of red blood issued from the cord, and the child never cried; while slapping, cold water sprinkling and brandy application failed to elicit the welcome symptom of life. However, when placed on a table and in the light, the pulsations of the heart were faintly visible, so artificial respiration was at once resorted to; the first method tried being that of having one to breathe into the infant's lungs, and another to expel the air from the same. The infant having been laid on its back and rolled in a warm blanket, was so placed that the head extended over the edge of the table, and was allowed to droop a little to prevent the air passing into the stomach. The child's face was next covered with a towel, and the little nostrils having been compressed by the left thumb and forefinger of the operator (his right supporting the head), air was regularly but forcibly breathed into the lungs, and again expelled from them by an assistant's pressing alternately with his two palms on the infant's chest; brandy being vigorously rubbed into the chest by an attendant. The treatment, *after an hour's* steady prosecution, and the heart's action scarcely detectable, was rewarded with one voluntary inspiration, but had to be immediately

renewed after the gasp, which showed no signs of recurrence without the artificial respiration. Another single gasp occurred in half an hour, but the inflation, etc., had to be kept up, as the breathing apparatus had no strength whatever. Seeing the heart beating even so weakly, the attendants could not, nor were willing, to abandon the little struggler, and each took his turn at the "breathing;" the child got a couple of hot baths. Sylvester and Marshall Hall's treatment were both tried, till, from a combination of all these remedies, the infant was breathing regularly at the rate of 15 per minute after *being inflated for nearly four hours.* Dr. Marshall not leaving till five o'clock, about half an hour before which time the first drop of blood from the funis tinged the water of the hot bath, in which the child was kept during its convalescence. Out of all the methods of resuscitation employed in this case, the breathing-in and expulsion of warm air had certainly the most beneficial effect on the infant, especially when the mouth-to-mouth breathing was combined with the raising and depressing the arms.—*Medical Press and Circular*, March 26, 1873.

Phytolacca Decandra in the Treatment of Inflammation of the Mammary Glands.

G. W. Biggers, M. D., of La Grande, Oregon, says, in the *American Journal of Medical Sciences:* The following cases are stated as the *result of my experience* only with the remedy in question, and I trust that others may try it and report the result.

Case 1. Mrs. H., on third day after labor with her second child; mammæ commenced swelling, from an accumulation of milk. Did not see her until the symptoms were so urgent that there could be no mistake about the commencement of an abscess.

I pursued the antiphlogistic treatment, both general and local, until there was no promise of improvement; on the contrary, the case was continually getting worse. I then prescribed fluid ext. phytolacca decandra, gtts. xx, every three hours, in water. A very marked improvement took place in twelve hours, and in thirty-six hours the patient was well. There was also a suppression of the lochia, which was also rëestablished.

Case II. Mrs. B., whose child died a few hours after its birth, was attacked, after the secretion of milk took place, with inflammation of the mammary glands, from over-disten-

sion, and had the milk withdrawn very regularly, yet the case continued worse, threatening an abscess. I prescribed fluid ext. phytolacca decandra, gtts. xx, every three hours. Marked improvement in ten hours, and a complete recovery within thirty-six hours. There was also a suppression of lochia in this case, which was reëstablished with the cessation of the mammary inflammation.

Case III. Mrs. G., at the fourth month of pregnancy, was attacked with inflammation of both mammæ, severe pain, swelling, and very great heat, with severe rigors, amounting to a distinct chill. I prescribed fluid ext. phytolacca decandra, gtts. xv, every three hours, in water. The symptoms all subsided, and the patient fully recovered within forty-eight hours, with no other treatment.

I have used the remedy above named in many other cases of mammary inflammation, and it has never yet failed in a single case.

The preparation used was Thayer's fluid extracts, for the reason that the plant does not grow in this State. A tincture from the green root would, I think, be more reliable.

Injection of Perchloride of Iron in Post-partum Hemorrhage.

A most interesting debate on the treatment of post-partum hemorrhage recently took place at the London Obstetrical Society, in which the merits and demerits of this treatment were fully discussed. Dr. W. S. Playfair states (*The Obstetrical Journal*, May, 1873), that a few days after this debate he had a case in which he employed it, and firmly believes he saved by it the life of his patient; "yet, very grave and even alarming symptoms followed, due, it can hardly be doubted, to its employment." Referring to the journal just named for the minute details of the case, we may state that, "when the iron was injected, although the hand was in the uterus, and the clots within it had been as much as possible removed, blood was still pouring out abundantly. The powerful astringent at once corrugated all the blood and coagula it came in contact with, and these hardened clots filled up the uterus and the canal of the vagina. In due course these began to decompose, and septic absorption took place. By the finger and the intra-uterine injection they were gradually broken down and removed. The improvement unquestionably dated from the expulsion of the two large and decompesing coagula on the sixth and seventh days after delivery. Immediately after

this happened, the temperature and pulse fell remarkably, and recovery commenced and continued uninterruptedly.

"What, then, is the lesson to be learnt from this case? Is it that the risk is too great, and that the injection of the perchloride of iron should be banished from practice? I think most undoubtedly not. I have little doubt, knowing what I did of the patient's former labor, and having already tried in vain all the anti-hemorrhagic treatment at our command, that without the perchloride the flooding would have proved fatal. It is indeed precisely in these inveterate cases, where every means of inducing uterine contraction proves unavailing, that it forms so invaluable a resource. Rather, I think, it should teach us to limit its use to these only—as, I believe, Dr. Barnes has all along taught. It shows also that the retention in utero of hardened coagula, liable to decomposition, may prove a source of danger hitherto unsuspected. With a knowledge of this fact, it would be our duty to secure the expulsion of the coagula as soon as possible after all risk of hemorrhage had ceased, and make sure that there was a free exit for the discharge.

"This would best be done by satisfying ourselves on the second or third day after delivery that the vagina is not filled with clots, and removing them if present, and by using anticeptic intra-uterine injections freely, as in the above case, should suspicious symptoms arise. With a knowledge of this source of danger, it might probably be avoided in most cases."

The Cases of the Three Sisters in whom the Uterus and Ovaries were absent.

BY DR. CHARLES E. SQUAREY.

In all three subjects the vagina was short, and ended in a cul de sac; the mammæ were developed; and the marks of puberty generally existed, except that they had not menstruated. Their ages were 16, 18, and 26 years. No trace of uterus or ovaries could be felt. Dr. Phillips reported the cases of two sisters. Dr. Rogers had examined three similarly affected subjects. The general opinion prevailed that the ovaries existed in all such cases (although they could not be felt), as there were the marks of womanhood in the general tastes and feelings of the cases, contour of body, and sexual desires. Many instances are upon record of this peculiar malformation affecting two or more members of the same family, as there are also of other sexual deformities, such as hypospadias, &c.

Vesico-Vaginal Fistula for the Relief of Chronic Cystitis.

BY PHILO E. JONES, M. D.

Mrs. V., aged forty-three years, came to me in February of the present year, asking treatment for what she called "trouble in passing water." From her history I learned that she has suffered from cystitis for the past three years, during which time she has received constitutional treatment from a number of physicians without experiencing the least benefit. In addition to the vesical trouble she has chronic cervical metritis with ulceration; also pulmonary tuberculosis of two years' standing.

Of course, with this amount of disease, she was greatly emaciated and not really able to be about. I ordered her to bed, and commenced the treatment by applying the necessary local remedies to the cervix uteri, and undertook to use warm water and anodyne injections into the bladder; but in this I signally failed. On the introduction of the catheter it was found to pass but a *very* short distance beyond the internal meatus, and when effort was made to pass it further, extreme pain was produced. Upon using the syringe I could inject but about one ounce of water, when extreme vesical tenesmus followed, with the forcible ejection of all in the bladder. A strong solution of morphine produced the same effects. These efforts were continued every other day, for some time; but failing to produce any relief, and the bladder not tolerating these measures as well as when commenced, I abandoned them entirely. The patient was now unable to be off her bed, but insisted upon being raised to urinate, which was as often as every five minutes, and accompanied with the most excruciating pain.

Having read the article of Dr. Parvin published in the *Clinic*, November 4, 1871, and that of Dr. Emmet in the *American Practitioner*, February, 1872, I decided to follow out the course of treatment therein advised, basing my conclusions upon the statement of Dr. Emmet that "even under the more unfavorable circumstances the risk of the operation is justifiable; life may be prolonged and a great degree of comfort obtained in allaying the persistent efforts to empty the bladder;" well knowing at the same time that in this case it could afford only temporary relief, as the patient must very soon die of consumption. After stating the facts to both husband and patient, and both requesting the operation, on the 4th of April, in company with Dr. D. W. Hollister, I performed it in the following manner.

The patient being under the influence of chloroform, and

lying upon the back, the knees drawn up, and a bivalve speculum in the vagina, a female catheter, somewhat abruptly curved, was introduced through the urethra. This was now held by my assistant, with its point firmly pressing in the median line against the base of the bladder, just beyond the vesical meatus. I then with a scalpel divided the parts directly on the joint of the catheter until it could be passed through into the vagina. With the catheter remaining in the opening as a guide, the blunt blade of a pair of scissors was passed along into the bladder, and an incision nearly an inch in length, was made directly backward in the median line. The walls of the bladder were now found to be greatly thickened and contracted, and the finger passed into the cavity could very readily detect the ulcerated condition of the inner surface. The bladder was now to be washed out once or twice daily, with a large amount of warm water injected through the vesico-vaginal opening, the finger also to be introduced through the opening every day to prevent its closure.

My patient was now entirely free from pain without the use of anodynes, in which condition she remained one week, when she died by asphyxia. With the *results* of this operation I am abundantly satisfied, it having relieved this poor woman of one week's suffering, which could not be obtained from the largest doses of morphine.—*American Practitioner.*

On the use of Pancreatic Emulsion in the Wasting Diseases of Children.

Horace Dobell, M. D. (*Practitioner*, October, 1872), proposes this remedy for that wretched form of atrophy, debility and marasmus in children, where every part of the body wastes away except the abdomen, the state described by Dr. Druitt in his *Vade Mecum* in the following few and graphic words: "Emaciation and voracity; the belly swelled and hard; the skin dry and harsh; the eyes red; the tongue strawberry colored; the breath fœtid; the stools dark-colored and offensive; the bowels sometimes costive, sometimes extremely relaxed; the patient usually dies hectic.' The author desires to bring prominently forward that this state, provided there is no advanced lung disease, is rapidly cured by pancreatic emulsion given in doses of a teaspoonful every four hours, and regularly persisted in until fat and flesh are restored. It is, of course, necessary that a proper diet should be insisted upon at the same time;

but proper diet without the pancreatic emulsion will not do. In addition to the stress laid upon the influence of the salivary and pancreatic juices upon the digestion of starch, in Dr. Prospero Sonsino's paper, the author says we must not forget the action of the pancreatic juice upon fat; and it is probable that the functions of the pancreas are sufficiently independent of each other that they may act separately. As shown by experiments, in addition to the action of pancreas upon fats, it has the power to convert starch into glucin by simple mixture, and this property remains to a certain extent after the pancreas has exhausted its power of acting upon fat. It is possible, therefore, that in different states of depraved health, the one or the other of these properties may be deficient. It is evident that when the power of digesting fat fails to be developed at the proper time, the effect must tell with double force upon children already suffering from deficient digestion of starch.

The children who become the subject of the kind of wasting now spoken of, are especially: (1) those suckled by mothers whose milk, though abundant, is extremely deficient in nutritive properties; (2) those brought up by hand; (3) those who, at a later period of childhood, have been subjected to similar chronic defects of diet. It is especially when the mother's milk is poor in fat and lactin, that the child becomes dissatisfied and craving; and, in the majority of cases, it is this that first leads to the introduction of farinaceous food, under the popular nursery belief that it is satisfying. As Dr. Sonsino says, if this is given before the power of digesting starch becomes established, of course, nothing but mischief can be the result. In the same way that the mother is deprived of fat elements by lactation, so is the child deprived of them by persistency in a diet deficient in milk. The injury is a double one, first by cutting off the supply of fat elements necessary for the protection of the tissues; secondly, by paralyzing the functions of the pancreas by prolonged inactivity. This latter is a point, the author thinks, deserving great attention, and thus accounts in great measure for the impossibility of restoring those ill nourished, wasted children by any kind of natural diet after they have been allowed to remain in a chronic state of defective nutrition. The author cites three of the very numerous cases where he has seen pancreatic emulsion administered followed by almost magical recoveries. No amount of milk or cream will take the place of the emulsion, the explanation why, notwithstanding milk is also an emulsion of fat, the author thinks turns upon the following points: (1) The fineness of the particles

of fat in the pancreatic emulsion; (2) the permanent character of the molecular mixture; (3) the fact that different fats in the pancreatic emulsion, consisting, principally, of stearine, margarine and palmatine, have a high melting point, thus differing from the fat of milk, oleine, which has a low melting point.—*Boston Medical and Surgical Journal.*

Practical Points in the Medical Care and Nursing of Children. Wet-Nursing and Artificial Feeding.

BY JEROME WALKER, M. D., PHYSICIAN TO THE SHELTERING ARMS NURSERY, BROOKLYN.

Mixed Nursing.—Intermediate between nursing by the mother and wet-nursing is what Cazeau calls mixed nursing. He is the only author, known to the writer, who treats of this in detail and urges its importance. It is the giving of additional food to the mother's milk when from any cause the quantity of this is insufficient. No statistics of the comparative value of this practice are given, but when the mother is healthy and anxious to nurse her offspring, experience claims that mixed nursing agrees better with the child than exclusive wet-nursing or artificial feeding. The mother who shirks the duty of nursing her own child, by expediency, fashion or caprice, had always be better substituted by a proper wet-nurse, to be mother to it in her stead. While mixed nursing is of value under the circumstances related, the physician should do all in his power to increase the quantity and improve the quality of the mother's milk, and carefully watch the child in order to avail himself of the necessity of procuring a wet-nurse, if required, before too much suffering is involved to admit of benefit. A wet-nurse should be a healthy woman, between twenty and thirty years of age, and the mother of at least two children.

Wet-nursing.—The same rules hold true in the choosing of a wet-nurse, as in deciding upon the continuance of nursing by the mother, and need not be repeated; but there are two very pertinent questions to consider in this connection:

1st. *When* shall a wet-nurse be resorted to?

2d. What shall be the age of her milk, considered with reference to the child she is to nurse?

Dr. Reynolds' answer to the first is the true one, viz.:

"In all cases where the mother *can't* nurse." To this may be added, or when the physician, after the most conscientious inquiry, deems it best for the mother not to nurse.

Dr. Dunster says: "I believe in having a wet-nurse, when a proper one can be procured; but the care of such a child is of equal importance almost with the feeding it on breast milk. I mean," says he, "that simply by breast feeding you cannot rear children. Take the healthiest milk imaginable, and let the infant nurse at stated and sufficient intervals, and then put it back to its crib or bed to care for itself, and it will inevitably die. Employed wet-nurses are frequently of the opinion that their function ends with the act of suckling the infant, and, if so, the wet-nurse is only a nuisance, a snare and a delusion."

As to the proper age for wet-nurses' milk, Dr. J. Lewis Smith writes: "The milk of six weeks, not older, can be given to a new-born babe." Vogel prefers a nurse who has brought up a robust child, and who has been confined three or four weeks before she is employed as a wet-nurse, for the quantity of the milk is liable to diminish and abrasions occur." Cazeau says: "Best not to give a new-born child the milk of a nurse who has been delivered longer than from eight to ten months. Milk from two to six months should be preferred." Dr. Dunster: "It is not necessary that the milk of a wet-nurse should be of the same age as that which the child has been accustomed to, but it is desirable to have it somewhere near the same age, though if any decided variation is made it is better that the milk should be younger rather than older." "It would be well," says Dr. Reynolds, "to have wet-nurse's milk of *same age* as the mother's; but if infant is over two months, a few months older milk, or even one month's milk under peculiar circumstances, will answer. If infant of three months or older is habitually constipated, I prefer young milk." In a discussion between M. Devergie and M. Boudet relative to ill-regulated nourishment of infants, of some practical interest, M. Devergie asserted that nine months' milk was too rich for a new-born infant. M. Boudet says chemical analysis demonstrates that from the first to the eighteenth month the milk scarcely changes at all. M. Boudet also combats the wide spread opinion that a new-born infant regenerates nurse's milk. Bouchut explains by saying, "that the young child encourages accumulation." The inference to be drawn from an examination of the different statements is, to choose a wet-nurse for a new-born babe, whose milk is not less than three or over six weeks older than the child. As to older infants no rule can be given; simply as near as possible.

We are now prepared to examine the subject of—

ARTIFICIAL FEEDING, *i. e.*, the consideration of the so-called "substitutes" for mother's milk, viz., animal milk, farinaceous foods, and the "prepared foods."

Substitutes.—Is there *any* real substitute for mother's milk? This question is answered well and most explicitly by Drs. J. L. Smith and Reynolds. All substitutes for mother's milk (or wet-nurses milk), says Dr. R., *generally* fail. *Nothing* can, with any certainty, replace human breast milk, though many infants are reared upon cow's milk, or cow's milk with some farinaceous preparation added to it. Can the milk of any animal, or any kind of artificial food, asks Dr. Smith, be so prepared as to be a safe and sufficient substitute for human milk? I answer most decidedly no! No one who has been familiar with the management of the New York foundlings, during the last ten years, could answer otherwise. These answers imply, as we have so often urged, that "substitutes" should be the *last resort*, all other means having been carefully tried for the nourishment of the child. The article generally advised by physicians is the milk of either the cow, ass, or goat, or condensed milk. We need only mention ass's milk, as it is seldom if ever used in this country. I have not been able to find any report of the use of goat's milk, and have had no experience with it myself, although it is often used. Its peculiar odor is an objection to many, though Peple, of Lyons, says: "there is no truth in the statement that the milk of horned animals smells—white goat's milk is almost free from smell."

According to Lehmann's analysis, goat's milk is faintly sweet, has a peculiar odor, sp. gr. 1.036; solid constituents 13.2 to 14.5, *i. e.*, 4.02 to 6.03 casein, 33.2 to 42.5 butter, and 4.0 to 5.3 sugar of milk; has less casein than cow's milk, a little more fat, and much more sugar. Some Continental writers advise, as substitutes, ass's or mare's milk; while a late writer, Cavault, gives preference to rennet whey and a decoction of malted barley. Condie says one of the best substitutes for mother's milk is Liebig's soup, made of wheat flour, malt meal, and bicarbonate of potash. "Dr. Gumpracht, of Hamburg, advises carrot pap." This is recommended by several writers. As cow's milk alone, or mixed with some food, is given as a substitute for mother's milk by a large majority of physicians, and will continue to be given, it is necessary to inquire:

1st. How shall cow's milk be given—pure, the milk of *one* cow, or of a herd, mixed, diluted, or condensed?

2d. If mixed, with what, and in what proportion?

3d. If diluted, with *what* diluted, *why*, and in what proportion?

4th. In what quantity?

5th. *When* shall the food be given?

Cow's Milk.—According to Lehmann, "the specific gravity of cow's milk is 1.030 to 1.035 (while that of human milk is 1.030 to 1.034); cow's milk has one part more of solid constituents, more casein, more butter, less sugar, and more salts than woman's milk. Lactic acid not present in fresh milk." Dr. Lobb in an article on "Artificial Maternal Milk." *Med. Times and Gazette*, July 25, 1857, says: "From tables, maternal milk has less than one half curd found in cow's milk, a little less butter, more sugar, salts do not vary so greatly in amount, and water a little more than cows," about twenty-three parts in a thousand. Condie says the milk should always be alkaline. M. Donne shows fresh human milk and ass's milk to be alkaline. As to cow's milk, there are doubts, although it is almost always neutral. Sometimes cow's milk is acid; then the microscope shows the globules collected together. This acid milk he found in a cow carefully chosen and apparently healthy. Vogel mentions casein as the essential difference between mother's and cow's milk. We are to bear in mind that even when, to the sight or taste, cow's milk seems pure, it may, according to Dr. Klencke, of Leipsig, Sir Robert Carswell and others, be the tuberculous milk of stall-fed cows, or may contain infusoria (Lehmann). Marchand found dissolved hematin in the milk of a diseased cow, without finding any blood corpuscles. Cow's milk, it will be seen, is not always a safe substitute. If there is the *least* doubt; on account of the child not being nourished, examine the milk chemically and microscopically.

The following results of examination of milk by Dr. Nichols* and Mr. Sharples† are valuable:

1st. The milk of certain cows, particularly the Alderney, contains a large proportion of cream, hence very nutritious for infants. The milk of Durhams and others, richer in casein, therefore, not so good.

2d. Milk is most abundant in the spring. In dry seasons of small quantity, but rich quality. The afternoon milk is richer on the average by one fourth than that obtained in the morning, and the last portion of a milking—the strippings—is the richest.

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* Report on Adulteration of Milk. By Arthur H Nichols, M. D., assisted by Prof. James F. Babcock, to State Board of Health of Massachusetts, January, 1873.

† Pure Milk. By S. P. Sharples, State Assayer, Mass.—*Boston Journal of Chemistry*, 1873.

3d. The milk secreted during the first week or ten days after birth of a calf should not be used.

4th. The common adulterations of milk are water, flour or starch, arrow-root, eggs, sugar, soda, magnesia and salt. Chalk is seldom found.

5th. The purity of milk cannot be determined by any *one* test—all are necessary, viz., chemical analysis, to ascertain proportion of solids and liquids; the use of the hydrometer, lactometer, lactoscope and microscope.

[To be Continued.]

Ophthalmology and Otology.

Separation of the Retina.

BY GEORGE H. POWERS, M. D., OF SAN FRANCISCO.

Mr. C., a laboring man, applied to me June 20th, to examine his right eye, which had been "dim" for two weeks. He stated that his left eye had been affected similarly and simultaneously, but had recovered, and that the approach of the difficulty of vision had been not sudden, but insidious and gradual, so that he did not know when it commenced, nor could he assign any cause for it. He was well in all respects, and had suffered no pain or soreness in or about either eye.

I found the eyes perfectly healthy in all external appearances, and vision of the left eye quite normal. Vision in the right eye was reduced to counting of fingers at fifteen inches, but the limits of the field of vision were not much contracted. On dilating the pupil with atropia, the ophthalmoscope revealed a large separation of retina, or rather two large folds of retina, elevated by subretinal effusion, and separated by a narrow strip of retina in situ. The retinal vessels were plainly seen on the surface of these elevations, the optic disc was plainly visible and normal, and there was no posterior staphyloma in either eye. A compress bandage was applied and perfect quiet ordered, together with the administration of inf. sennæ co. and of kali iodid. in five grain doses.

On the 22d the vitreous was so turbid that the details of the fundus could not be seen. On the 26th the effect of the atropia had ceased, and there was a single but rather broad attachment of the iris to the lens-capsule at the outer side. The atropia was again applied and the bandage replaced, and at my next visit I found the pupil symmetrically dilated, the synechia having given way. On the 28th the vitreous appeared much less turbid, and the optic disc could be seen, though dimly; the folds of retina had become re-applied in their normal position, and large shreds were floating in the vitreous. Vision had improved so that the patient counted fingers at ten feet distance.

July 19th, the fluids have regained almost their normal transparency, though a few small opacities can still be seen in the vitreous, and vision now equals $\frac{1}{10}$, daily improving.

I report this case because the disease is one which often exists without pain, and which cannot, except in exaggerated forms, be diagnosed without the ophthalmoscope, and also because a satisfactory recovery is quite rare.

It is usually associated either with a high degree of progressive myopia or with a retinal or choroidal inflammation, neither of which was present in this instance. I attribute the separation of retina in this case to a subretinal hæmorrhage occurring while the patient was stooping and lifting, and the recovery, to a transudation of the effused fluid through the retina into the vitreous.

Chronic Iritis causing Complete Obliteration of the Pupil and Blindness. Iridectomy and consequent Restoration of Sight.

BY N. J. MARTINACHE, M. D., SAN FRANCISCO.

On the 8th inst., Mr. M——, aged 49, applied, under the following circumstances, at the Clinic of the College (Medical Department, University California). He had been suffering for a long time from double iritis, in consequence of which, large plastic deposits had established complete adhesion between the pupil and the anterior surface

of the lens in the right eye, and in the left it had entirely obstructed the pupil.

Some months previously the right eye had been operated upon by an oculist in this city, but with very unsatisfactory results. This, at first sight, seemed strange, for the artificial pupil looked black; but upon examination with the ophthalmoscope, it was accounted for it this manner: In the part corresponding to the excised iris; *i. e.*, on the lower and inner side; the border of the crystalline may be plainly discerned for an extent of two lines, and internally to this a rectangular space, about two lines long and one broad, by which the fundus of the eye is distinctly visible. I was not a little surprised to see two quite distinct papillæ without any material change in the fundus of the eye. When the patient looks at a light, or a bright object, he sees it double, in consequence of the eye possessing two refracting systems; one with, the other without the crystalline lens.

The double vision is a source of perpetual annoyance to the patient; his gait is unsteady, and, when about to lay hold of anything, he is perplexed which to take of the two objects he sees.

In the left eye the pupil is not only adherent throughout its whole extent to the anterior surface of the crystalline, but it is also entirely obliterated by thick plastic deposits from former inflammations, forming a rather considerable secondary cataract. The iris does not present its normal structure, the fibres being pressed together in consequence of the retraction of the interposed plastic products, thus substituting for the peculiar reticulated aspect of this membrane that of a nearly uniform texture. The visual perception is about what might be expected in such a case; that is, the patient can distinguish light from darkness, or perceive a candle in a closed room; but without being able to see any object. He had already consulted two oculists: the first attempted an iridectomy on this eye (the left), but with no other result than that of dragging the iris into the incision, thereby vertically lengthening, and giving it the appearance of a cat's eye.

The second physician, upon mature consideration, pronounced the case incurable.

These antecedents were certainly quite sufficent to make me hesitate about giving an affirmative reply to the patient's inquiries, as to the possibility of doing anything for him. But, all things duly considered, I did so, proposing at the same time iridectomy, which he eagerly accepted. This was performed, at the County Hospital, on the 12th inst., in the usual manner. As the unsuccessful attempt had been made in the *lieu d'election*; *i. e.*, below and inwardly, I was obliged to make my incision nearer to the horizontal diameter than I would otherwise have done. The anterior chamber was extremely narrow, thus greatly increasing the difficulties of the operation. After successfully making the incision, I carefully introduced the iris forceps, and allowed the blades to gently open, carefully applying the lower one just at the limit of the inflammatory deposit and the tissue of the iris. I then seized a fold of the latter, a little less than two lines wide, withdrew, and cut it off. The tissues were very resisting, requiring a certain amount of force to lay hold of the iris, as well as to withdraw the instrument. A very slight hemorrhage occurred into the anterior chamber, but did in no wise prevent the students present from seing the extent of the new pupil, when I prognosticated a good optical result. I took care not to exercise any traction on the secondary cataract, on account of the great risk of tearing the crystalline capsule.

A bandage was applied, and the patient ordered to keep his bed.

July 13th, thirty-six hours after operating, the bandage was removed, when the patient, without any hesitation, counted my fingers at three different times. The bandage was re-applied.

July 15th, upon lifting the bandage, the patient not only counts my fingers, but can distinguish the thumb, the little finger, a watch, the color of the beards of the nearest bystanders, etc.

July 21st, the patient is doing well in every respect, and will be able to leave the hospital in a few days with perfectly restored vision.

Operation for Strabismus.

Dr. Snellen latterly has adopted the following method of operating for strabismus: The conjunctiva is freely divided in a direction parallel to and diretly over the muscle; thus in convergent strabismus the incision would extend from the edge of the cornea towards the caruncle. Wounds in the conjunctiva parallel to the margin of the cornea are inclined to gape, especially when the eye is turned in the opposite direction; wounds vertical to the margin of the cornea are, on the contrary, inclined to close when the eye is rotated in the opposite direction. If necessary, a suture can be applied without any fear of diminishing the effect of the operation. The operator next holds with forceps first one lip and then the other of the wound, and separates with blunt-pointed scissors the conjunctiva to an equal extent above and below. The caruncle is then held and treated in the same way. The closed forceps are placed between the edges of the wound on the middle of the muscle, opened, then gently pressed down and closed, thus inevitably seizing the muscle, into which a small aperture is now made close to the sclera. Two exactly equal incisions can now be made by inserting one blade of the scissors through the opening and the other between the muscle and the conjunctiva.

The advantages assigned are the following:

1. The operation is easier. There is no risk of wounding the sclera (hence sharp-pointed scissors may be used so as to separate the attachment nearer to the globe). There is no danger of dividing Tenon's capsule too far in any direction.
2. The operatian is less painful.
3. Extravasation of blood under the conjunctiva is prevented.
4. When desired, the capsule can be divided to a greater extent on one side so as to alter the action of the muscle.

A somewhat similar operation is proposed by Dr. Snellen for paralysis of the ocular muscles. "The conjunctival wound is in the direction of a meridian (from before backwards). The muscle is divided in the usual way, but a little further back than in tenotomy, so that a small piece of it remains attached to the sclera. Two sutures are now applied in the following way: Through the upper edge of the wound in the conjunctiva, through the remnant of the tendon on the sclerotica, through the muscle drawn forwards, and again through the same edge of the wound in the conjunctiva. The second suture is inserted at the lower side exactly in the same way and parallel to the first. Both

are now separately drawn tight and knotted. So made, they cannot possibly become loose too early. As the knots are on the outer side of the conjunctiva, the threads can be easily removed at any later period. The risk of inflammation may be lessened by separately uniting the conjunctival wound. It is not always necessary to divide the antagonist."—*Royal London Ophthal. Hosp. Rep.*, Feb. 1873.

Editorial.

Russell's Doom.

Under the above caption we notice in the daily prints mention made that Dr. Morse, at a recent meeting of the San Francisco Medical Society, presented a petition asking the Governor to commute the sentence of Chas. A. Russell, and requesting the members to sign the same, and that the Rev. Dr. Wythe had said that he was satisfied that Russell's was a case clearly deserving Executive clemency.

That Dr. Wythe, being a minister of the gospel, should, from his stand-point, urge a commutation of sentence, we can readily appreciate, but why Dr. Morse or the members of the San Francisco Medical Society should step aside from the appointed track of a scientific body to interfere with the ministration of justice or the legal penalty of the most heinous crime known to civilization, seems, to say the least, strange.

Why this conclave of scientists, convened avowedly for the discussion of medical topics or subjects, should conceive that it was a part of their duty to offer a prayer in behalf of poor Russell, as did the Board of Brokers for Donavan, and thus hold themselves up to ridicule, we cannot answer; but we do say, that the San Francisco Medical Society had better either confine itself, as a society, to the prosecution and discussion of legitimate themes, or at once resolve itself each night into a prayer meeting, over which either Dr. Morse or the Rev. Dr. Wythe might, with great propriety, preside.

Our Schools.

Of the many questions which should engage the attention of the medical profession, as the conservators of the public health, none is of so much importance as the curriculum of study pursued in our public schools and the sanitary conduct of these institutions.

Why so many pale faces amongst our children? Why the great mortality? Why the cachexia that characterizes our youth? and What is to be the effect upon the present and coming generations?

These are questions each grave in itself, and we propose very briefly to answer them, and in the name of humanity to point out the fruitful causes operating, and demand their removal by the proper authorities, whose duty it is to protect the health of our rising generation as much as it is to assist to educate it.

It is but necessary to examine into the curriculum of studies of our grammar grades to satisfy one that too much is required and expected; and this evil, we apprehend, has grown out of the fact, that here in California (or San Francisco particularly), under the influence of our bracing winds and cool temperature, as well as the surcharged electrical condition of the atmosphere acting as a stimulus to the brain, enabling this organ to accomplish more in a given period of time than elsewhere—the children of our schools have given and do give evidence of precociousness of intellect that in many instances have been astounding. Our educators, actuated by a pride to have their classes attain to a certain standard for promotion, required by the "Board of Education," encourage this activity of the brain, and, like the exotic plant cultivators in our hot houses (to which our schools may in many instances be compared), the intellect of the child is *forced* in its development to a preternatural degree, and at the expense of the physique and health of the individual.

It is a well known fact, that the studies required of children, from the sixth grade to the first, are such as should involve at least twice the time allowed by the Board, and whilst it has been and will again be asserted by our teachers, in support of the propriety of the curriculum estab-

lished, that our children accomplish it—we, with greater earnestness and better opportunities to see and know, in the most positive manner assert, that it is both unnatural and cruel, and its consequences upon the health of our children later in life, and upon their children, can be nothing short of a degeneration which is at once appalling, when viewed from an impartial stand-point, and must ultimately be met by an entire revision of our school laws.

Great as is this evil, the practice of herding our children in underground school rooms, so common at the present time, is, if possible, a greater evil, which calls loud for correction.

There is no excuse for placing delicate and young children in basement rooms, without sunlight and pure air, so indispensable to their health and well-being.

The people of San Francisco, as well as of the State, are too generous to make this practice admissible, and why the Board of Education, some of whom are parents and consequently (even though not blessed with a liberal education themselves) are in a position to practically appreciate the facts, should yet fail, we are at a loss to determine. So marked are the effects of these evils upon the rising generation (and especially the girls), as exhibited in their pale faces, deranged digestion, functional impairment of the heart and nervous system, together with every species of menstrual disorders, that the time has come when the medical profession should proclaim the facts, and, as the overseers of the public health, insist upon, first, a decided reduction in the curriculum of the grades referred to, as well as the school hours, and an immediate vacation of every school room the floor of which may be below the grade of the street. The truth is, the Board of Education should be largely composed of medical men, or at least there should be a standing committee on Hygiene composed of medical gentlemen, whose duty should require them to visit the different schools regularly, and who should also be an advising committee upon all matters appertaining to ventilation, location and construction of school-houses and class-rooms, as well as the establishment of the studies with reference to the health of the children.

California College of Pharmacy.

On Tuesday evening, July 8th, the opening exercises of the California College of Pharmacy were held in the lecture room of the College. The auditorium was densely filled by members of the Medical profession, Pharmacists and Students of Pharmacy.

President Gilman, of the University of California, in a very elaborate and well-digested address welcomed the College to a position in the University of the State, and dwelt upon the advantages to be derived by the public through a thorough education of young men in this important branch of science, and the rare opportunities offered students by the Faculty to acquire knowledge and rank amongst the scholars of the land.

In the course of Professor Gilman's remarks reference was made to the contemplated general plan of the University, from which it would appear that the Board of Regents are determined to embrace within the limits of the Institution every department of science, art and letters, that our young men may, on entering, announce their choice of a profession, when the curriculum preparatory to the higher education will be determined, and the student instructed in such branches only as are practically of value in that direction.

After the very interesting address of President Gilman, Mr. Wenzell, the President, read a lengthy review of the Pharmaceutical profession in general on this coast, the necessity which had existed for a College, and the more immediate circumstances which led to the early establishment of the same. The article was well written and contained many excellent suggestions.

Mr. Wenzell then announced that Dr. R. Beverly Cole, one of the Faculty of the "Medical Department of the University of the State," was present, and that he would address a few extemporaneous remarks to the class.

Dr. Cole then alluded to the broad plan adopted by the Board of Regents for the establishment of a State University, and congratulated the Pharmacists on having accomplished a union with the great central institution of the State.

He was the more particularly pleased, since he had in a very quiet yet earnest way advocated the affiliation; and he was glad to be able to say that the Faculty chosen were men well known for ability, industry, and devotion to the science, and that the young gentlemen of the class, should they be actuated by thirst for knowledge, would find all they desired in the institution. Dr. Cole then took occasion to point out some of the disadvantages of the Pharmaceutical profession for such as had not industry and devotion, and advised all such to stop at the threshold of the College and never enter. "The Faculty (your teachers) cannot furnish you with brains, or create within you a love of study; all they can do will be to point out the road—'lead you to the brook, lift the cup to your lips; but it is for *you* to drink.'"

At the conclusion of Dr. Cole's remarks, Mr. James G. Steele, one of the Board of Trustees, in the name and on behalf of the board, read a lengthy, comprehensive and highly interesting report of the origin and progress of the Pharmaceutical Society and College, and announced that theirs was the tenth College established in the United States. Mr. Steele's address was full of important and interesting matter, which was so adroitly and elegantly put together and pleasingly rendered, as to fix and retain the attention of every one present to the end—which was quite late in the evening.

Mr. Searby, Professor of Materia Medica in the institution, then addressed a few words to the class, which gave evidence of his power as a speaker, and gratified the entire assembly.

After an announcement by Mr. Wenzell that the first lecture of the course would be given on the following Friday evening, the meeting adjourned.

Pulse of Animals.

Vatal, in his "Veterinary Pathology," gives for our domestic animals the following pulse: Horse, from 32 to 37 pulsations a minute; ox or cow, 25 to 42; ass, 48 to 54; sheep, 70 to 79; dog, 90 to 100; cat, 110 to 120; rabbit, 120; Guinea-pig, 140; duck, 135; common fowl, 140.

Clinical Instruction.

The rank assigned to clinical instruction, in the curriculum of a modern medical school, is a very exalted one. "More bedside study" seems to be the general demand. The Eastern Medical Colleges are increasingly recognizing its importance, and are showing an active spirit of emulation in providing facilities therefor. The Medical Department of the University of Pennsylvania is about erecting a General Hospital of magnificent proportions, at a cost of $700,000. The Jefferson Medical College is also in the field, and has a handsome hospital in course of construction. The hospital of Bellevue Medical College, New York, is one of the largest and best on the continent. Every school of any note has its hospital under direct control; the staff, comprising the members of the Faculty on whom the superintendency devolves; the newly-made graduates, who are gladly willing to pass a year in charge of a ward before commencing actual practice; and the more advanced students, primed with knowledge, and eager for the fray.

Looking nearer home, the resources for clinical instruction, open to medical students in San Francisco, are excellent, as far as they go. The city fathers have shown a liberal and progressive spirit whenever appealed to on behalf of medical education. Beside various other eleemosynary institutions of this city accessible to the student, the City and County Hospital, with its 500 beds, and its varieties of diseases in the protean shapes that only a cosmopolitan city can present, is open to him without let or hindrance. But the great want of the Medical Department of the University of California is the establishment of a hospital connected with the College. Such import does this requirement bear to the upward progress and budding fame of the Medical Department of our University, that "manifest destiny" points to its certain consummation sooner or later. North Beach is, or ought to be, the most salubrious part of the city; and the authorities would no doubt willingly donate a portion of the site of the old City and County Hospital for the purpose. It is to be hoped some action will soon be taken in this matter.

Personal—A Distinguished Visitor.

A few days since we had the pleasure of receiving a visit from Prof. Edmund R. Peaslee, M. D., L. L. D., of New York City, Professor of Diseases of Women in the Albany Medical College.

Prof. Peaslee's reputation is co-extensive with the science of gynæcology, and for half a century past he has been considered one of the highest American authorities upon this subject. Impaired health consequent upon overtaxation of mind and body required that he should have some relaxation from labor, and his visit to California has been made in search of strength and health, which, we are happy to be able to say, he has found.

Prof. Peaslee made, during his brief stay in San Francisco (which was only 20 to 23 days), visits to several of our institutions, and expressed himself highly gratified with his visit to the State, with the climate, and the progress that the science of medicine was making, as evidenced in the presence of schools, etc.

We hope that time may continue to deal kindly with him, and that it shall be our privilege to announce another visit from him ere long.

Resignation of Prof. Joseph Pancoast.

Through private sources we learn that the chair of "Anatomy" in the "Jefferson Medical College" of Philadelphia is about to be made vacant by the resignation of Prof. Joseph Pancoast, M. D.

Dr. Pancoast has held this post now nearly forty years, and though advanced in years, during his late visit to this coast gave evidence of good health and vigor. We regret his determination to resign, and the more since we learn that there is a warm contest going on as to his successor.

His son William, who for a number of years has been demonstrator, should, according to the civil rights principle, be his successor, but for reasons real or imaginary, possibly ambition in other quarters, has given rise to this contest.

We hope whoever may be selected will maintain the reputation given it by the late incumbent.

Miscellaneous.

"Our Weights."

Upon the average, boys at birth weigh a little more, and girls a little less, than six pounds and a half. For the first twelve years the two sexes continue nearly equal in weight, but beyond that time males acquire a decided preponderance. Thus, young men of twenty average about 143 pounds each, while the young women of twenty average 120 pounds. Men reach their heaviest bulk at about thirty-five, when they average about 152 pounds; but women slowly increase in weight until fifty, when their average is about 128 pounds. Taking men and women together, their weight at full growth averages about twenty times as heavy as they were on the first day of their existence. Men range from 108 to 220 pounds, and women from 88 to 207 pounds. The actual weight of human nature, taking the average of ages and conditions—nobles, clergy, tinkers, tailors, maidens, boys, girls, and babies, all included—is very nearly 100 pounds. These figures are given in avoirdupois weight; but the advocates of the superiority of women might make a nice point by introducing the rule that women be weighed by Troy weight—like other jewels—and men by avoirdupois. The figures will then stand; young men of twenty, 143 pounds each; young women of twenty, 160 pounds each, and so on.—*Sanitarian.*

Physician's Bills.

At the Sydenham Medical College Coterie of Philadelphia, these two resolutions were passed:

Resolxed, 1st, That on every bill hereafter sent the following words be added: "Bills rendered monthly."

Resolved, 2d, That the bills be thus rendered unless still in attendance on the patient.

If these resolutions were generally adopted, the public would soon adapt itself to the regulations, and all would be gainers thereby.—*Medical Times.*

Hydrate of Chloral in Incontinence of Urine.

Dr. Giralamo Leonardi has found chloral an invaluable remedy in nocturnal incontinence of urine. The dose for children is from five or ten grains taken in water before going to bed. For adults the dose is proportionately larger. Tee treatment has been successful in all of his rel corded cases. The remedy must be repeated for severa successive nights.—*Lo Sperimentale.*

Air and Light. (A Doctor's Story.)

BY W. M. CARLETON.

I.

Good folks ever will have their way—
Good folks ever for it must pay.

But we, who are here and everywhere,
The burden of their faults must bear.

We must shoulder others' shame—
Fight their follies and take their blame;

Purge the body, and humor the mind;
Doctor the eyes when the soul is blind;

Build the column of health erect
On the quicksands of neglect.

Always shouldering others' shame—
Bearing their faults and taking the blame.

II.

Deacon Rogers, he came to me;
"Wife is a-goin' to die," said he.

"Doctors great, an' doctors small,
Haven't improved her any at all.

Physic and blister, powders and pills,
And nothing sure but the doctor's bills!

Twenty old women with remedies new,
Bother my wife the whole day through;

Sweet as honey, or bitter as gall—
Poor old woman, she takes 'em all.

Sour or sweet, whatever they choose,
Poor old woman, she daren't refuse.

So she pleases who'er may call,
An' death is suited the best of all.

Physic and blister, powder an' pill—
Bound to conquer, and sure to kill!"

III.

Mrs. Rogers lay in her bed,
Bandaged and blistered from foot to head.

Bandaged and blistered from head to toe,
Mrs. Rogers was very low.

Bottle and saucer, spoon and cup,
On the table stood bravely up;

Physic of high and low degree;
Calomel, catnip, boneset tea:

Everything a body could bear
Excepting light and water and air.

IV.

I opened the blinds; the day was bright,
And God gave Mrs. Rogers some light.

I opened the window; the day was fair,
And God gave Mrs. Rogers some air.

Bottles and blisters, powders and pills,
Catnip, boneset, syrups and squills;

Drugs and medicines, high and low,
I threw them as far as I could throw.

"What are you doing," my patient cried;
"Frightening Death," I coolly replied.

"You are crazy!" a visitor said;
I flung a bottle at her head.

V.

Deacon Rogers he came to me;
"Wife is a-comin' around," said he.

"I re'lly think she will worry through;
She scolds me just as she used to do.

All the people have poohed and slurred—
All the neighbors have had their word:

'Twas better to perish, some of 'em say,
Than be cured in such an irregular way."

VI.

"Your wife," said I, "had God's good care,
And His remedies—light and water and air.

All of the doctors, beyond a doubt,
Couldn't have cured Mrs. Rogers without."

VII.

The Deacon smiled, and bowed his head;
"Then your bill is nothing," he said.

"God's be the glory, as you say!
God bless you, Doctor! good day! good day!"

VIII.

If ever I doctor that woman again,
I'll give her medicine made by men.

—*Maine Farmer.*

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Surgery.

Extirpation of a Rodent Ulcer by the Ecraseur. Plastic Operation for the Restoration of an Entire Cheek.

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A. R., *aet.* 50, married. The patient had a rodent ulcer of the right cheek and lip since November, 1871. The disease first showed itself on the inside of the lip, near a decayed tooth, and by the month of August it had destroyed the corner of the mouth and had invaded the tissue of one fourth of each lip and about an inch square of the tissue of the cheek; it had also extended to the periosteum of the upper jaw in a small extent where the cheek rested upon it; there was no enlargement of the submaxillary gland. The ulcer had been treated by caustics of divers sorts, by the actual cautery, and, finally, it was removed by the écraseur on the 10th of August, 1872. I was called in consultation with M. Chassaignac to assist him in this operation for the removal of the disease, and to decide whether it would be possible afterwards to remedy the deformity created by it, through the aid of plastic surgery. One of the advantages

gained by using the écraseur was, that in this vascular part of the face no hemorrhage followed its use; another and an important one was, that the tissue outside of the chain of the écraseur, in being strangulated and contused to a certain extent, seemed to lose its power of continuing the malignant nature of the disease, should any germs be left. On the other hand, this very contusion of tissues—for it is nothing else—after the use of the écraseur, becomes a great obstacle to the immediate success of a plastic operation; and should the attempt be made to unite immediately a flap of transplanted skin to these contused borders of the wound, the result would prove unsuccessful. The method of seizing the cheek so as to apply the chain, was as follows: Two curved trocars were introduced crosswise, so as to include the diseased tissue—nearly an inch of the healthy tissue surrounding it. It was left to the patient whether he should have the benefits of anæsthesia or not; and he, being a man of extraordinary courage, decided in the negative; the chain was applied, and, after breaking one and reapplying another, the cheek was removed, the operation having occupied nearly an hour and a half. The hole made by the operation measured three and a half inches in length by three and a quarter in width. The facial artery was drawn out of its bed nearly an inch, the periosteum of the upper jaw was removed to the extent of an inch square, and the teeth of either jaw were exposed, as was also the anterior border of the parotid gland, just where Steno's duct emerges from the glandular tissue. In the photograph No. 1 is seen the exact appearance of the face three weeks after the operation. The white point in the left hand border of the wound, on a level with the tip of the nose, is the edge of the parotid gland and the exact situation of the injured duct. A few drops of saliva have fallen from the chin upon the patient's coat, even in the short time occupied in taking his photograph. A mass of bright red, healthy granulations occupies the wound; it had been dressed up to this moment with charpie soaked in carbolic acid wash, and the sloughs of dead tissue, one eighth of an inch in width, had all come away.

On the first of September, 1872, it was decided to perform a plastic operation, taking a flap from the side of the ear and neck. The following objections were made by certain surgeons who saw the case, to this operation: That the disease would return immediately, and that if it were covered over it might grow without being seen; that as the patient had an irregular pulse he could not be anæsthized; that the tissues were still too much inflamed to operate; that the hemorrhage from such an operation could not be controlled, and that the patient ran the risk of being strangled; that it was coquetry on the part of the patient; that the hole would be much smaller in the course of time, and then the operation could be done with more chance of success. Dr. Vollemier, of Paris, thought that he detected a thickening of the sheath of the sterno-cleido-mastoid and several little glands under the chin, and that it was better to do no operation, as the disease would return. Dr. Ricord thought the operation necessary and possible, but would rather some one other than himself would do it. To these objections it was replied that a rodent ulcer, well extirpated, without glandular infection, gave a fair chance of non-recurrence; that the patient was a strong, hearty man, eagerly wishing for the operation; that by using ether instead of chloroform but little if any danger was incurred; that the flap was to be taken from a part of the face little vascular, in the way of no great vessels, touching neither the facial artery nor the jugular vein; that the paring of the surface of the wound would not give rise to much hemorrhage, as the écraseur had closed the blood-vessels to a certain distance from the wound; that the operation was an affair of utility, to enclose the saliva which dripped constantly from the wound, and of necessity to prevent some lesion of the lung, which the air, imperfectly warmed before entering the chest, might create in the winter time; that the hole would never close of itself, but, on waiting, would be surrounded by a cicatricial tissue which would have to be removed; the morale of the patient was to be considered; for, disgusted with his appearance, he meditated suicide, and would have drowned himself had he not been assured

that some attempt at reparation of the cheek would be made. The operation being decided upon, the patient was etherized, and with the kind assistance of Dr. Wilkinson, of Dieppe, a somewhat rectangular flap, four inches in length by three and three fourths inches in width was taken from the neck just over and below the angle of the lower jaw; the pedicle was cut from the skin in front of the ear; the hemorrhage was very moderate; six arteries were tied and several smaller ones were twisted; thirty-three silver sutures united the flap to the adjacent borders of the wound; the pedicle measured one half an inch in width, and was so cut that it glided into its new resting place without being twisted; a little channel was dissected out for its reception through the skin lining the border of the wound, and this strip of skin was united to the posterior edge of the flap, so that no tissue was lost. The wound of the neck was dressed with raw cotton. The operation occupied two hours; the patient rallied well, with a pulse of 75; from hour to hour, in the afternoon, the flap changed its color, having a mottled appearance towards evening; the blood was sponged off from the line of sutures every five minutes during several hours. A slight bleeding from the mouth, which lasted all the following night, was arrested by injections of brandy through the lips.

Sept. 2.—P. 80; the sides of the flap seem united, but the extremity is of a dark color at a distance of nearly an inch. This part was then immediately painted with collodion, in order to give it a certain support; there is a redness and swelling under the right eye, but no pain.

Sept. 3.—P. 80; the saliva has become white again; the patient is fed on milk and beef tea, which he takes through a straw; the flap begins to show the beard growing upon it; a cold water compress was placed over the swelling under the eye.

Sept. 4.—The patient sat up for two hours, and is in excellent spirits; p. 65; a little pus was noticed under the pedicle, and was evacuated by means of a probe; no fluid comes away from the cheek.

Sept. 5.—The cotton was removed from the wound of the

neck, and a new dressing of it substituted; several sutures were removed from the upper border of the flap where union had taken place; the beard pushes freely on the flap, even through the collodion; it is still of a red color, but is becoming white in spots; the patient was up nearly all day.

Sept. 6.—Patient was out in the garden twice to-day; five sutures were removed; the swelling is gone from below the eye.

Sept. 7.—The dead part of the flap near the lips has separated from the living tissue; the rest of the flap is of normal color; the patient was out of doors six hours during the day.

Sept. 8.—Took away every suture and ligature, and had the flap shaved; the two extremities of the lips are united one to the other; the flap has lost one half an inch of its extremity; two pins then united the lip to the flap, the dead tissue being removed; a slight opening existed above, and a larger one below these pins; no effort was made to close them, but a dressing of charpie and carbolic acid wash was placed over them in hopes of exciting granulations; small strips of court plaster were placed all along the edges of the flap to support it; the cotton, too, was replaced by a bit of plaster.

Sept. 9.—The condition of the patient is excellent; there is but little moisture on the face.

Sept. 10.—A bit of dead tissue was withdrawn from the lower of the above mentioned openings, which now measure one inch in length by a third of an inch in width; the upper one exists only as large as a pin head; a line of bridges, with solid base, connects the flap to the lips.

Sept. 11.—The plaster was removed from the wound of the neck, and it was allowed to scab over; the granulations have come up level with the surrounding skin; this wound of the neck is just one half of its original size.

Sept. 12.—The patient drove himself ten miles in a carriage; the pins were removed from the lips; there was perfect union.

Sept. 15.—An attempt was made to close the lower opening by means of four horse-hair sutures, a long strip of

court plaster being passed from below the chin to the forehead, so as to support it. The following day the patient felt what he called a working of the flesh around the sutures; the wound was perfectly dry; in the pedicle the patient feels occasional twitches, as if some one were tying an artery; the bulging out of the flap was first noticed on the 19th; this bulging almost always takes place during a period of a month or so after a plastic operation, and so was not looked upon as a permanent thing. On the 23d, there being still an opening to the left of the angle of the mouth, a flap was taken from the lower corner of the chin, and four horse hair ligatures held it in opposition with the great flap: the operation occupying over an hour, was performed without ether; four arteries were tied; on the next day the flap was of a deep red color, but sensible throughout. On the 26th, charpie, with carbolic acid wash, was placed on the wound below the flap; there was no connection with the mouth. On the 29th all the sutures were removed, and the flap seemed solidly united; the photograph No. 2 was then taken, and shows the work of a month. A letter received from the patient, dated December 24th, 1872, gives the news of his excellent general health; he says that no granulating surface has existed on the face since the 5th of December; he complains of a tenderness on the inside of the flap; this I am led to believe is always the case, as the nervous force becomes more and more established in the transplanted tissue, is its tenderness greater. It was so in an operation for the restoration of an upper lip which I performed some two years ago, and the tenderness for two weeks or more was almost unbearable—but it passed away altogether—and such will probably be the case with our patient. His mouth is moderately dilatable. The successful result of so extensive a plastic operation is very gratifying, showing that, together with the pedicle, the union of the edges alone will be sufficient to support so large a flap, which rested upon no base, and which was constantly bathed with saliva.

Penile and Perineal Fistulae Closed, and an Obliterated Urethra Re-opened.

BY W. F. MCNUTT, M. D., L. R. C. P. E., ETC.

Tam Pan, Chinaman, aged about 40, was brought to me March 4, 1873. His friend, who spoke pretty good English, said, "China doctor could do nothing for sick man like this." I found that he had two penile and one perineal fistulæ, with complete obliteration of the urethra, anterior to the fistulæ. His friend said that he had had stricture for a long time, and that one year and a half ago he had taken a bad cold, and had abscesses formed, since which time the urine had entirely escaped through the fistulæ.

The penile fistulæ were situated one on each side of the penis, close back to the scrotum, the left being the larger through which most of the urine escaped. Tam remarked that, "Chinaman no like water come out at side; he like water come out straight."

I commenced treatment by getting a No. 1 sound into the bladder through the left penile fistula, and was some half an hour in succeeding, as the passage was very tortuous. While dilating the urethra through the left fistula, which I did by gradual dilitation, I applied nitrate of silver to the other fistulæ, and commenced, with a fine probe, to drill a passage down through the penis, following, as well as I could, the track of the obliterated urethra. After several weeks patient labor, working a spell almost every day, I could readily pass a No. 8 sound into the bladder through the fistula, allowing the urine to escape very freely; by which time I had also succeeded in getting a No. 4 sound down through the penis, and into the portion of the urethra already dilated by the No. 8 sound.

The right penile and perineal fistulæ having since closed, I commenced to apply nitrate of silver to the left fistula, and fastened a No. 4 bougie in the urethra, directing the patient to remove it before uniting, and replace it. This process was continued for some time, until he wore a No. 8 bougie, and the urine had ceased to escape also from the left

fistula, although the fistula had not entirely closed, as I could yet pass a probe through it into the urethra.

In June I lost sight of my Chinaman, who said that he was going to San José. He still wore his No. 8 elastic bougie. He urinated freely and without pain; there being no escape of urine from the fistulæ.

John left with a high appreciation of the "Merican man's" skill, for what he called outside medicine, saying that China doctor could cure inside sickness.

[Clinic of DR. H. H. TOLAND, City and County Hospital.]

Two Cases of Lithotomy by the Bi-lateral Operation.

REPORTED BY W. H. MAYS, SAN FRANCISCO.

CASE I.—B. K., aged 35, a native of Ireland. Admitted to City and County Hospital July 1st, 1873. Had been troubled with stone in bladder four years. Latterly his torments had become most intense and the passage of blood frequent. Patient was operated on July 8th. The usual horse-shoe incision was made an inch above the anus, and continued down to the membranous portion of the urethra, the double lithotome inserted and sprung, and the stone extracted in a short time, and with little hemorrhage. The calculus was two inches in length by one and a quarter in diameter, of a flattened oval shape, semi-transparent, its surface studded with sharp crystalline points, and presenting when dry a beautiful glittering appearance. Patient recovered easily. Passed urine through urethra July 21st. Wound closed seventeenth day after operation.

CASE II.—Max H., aged 25, a native of Prussia. Admitted July 16th, 1873. Had been suffering for upwards of a year from disease of the bladder. Urine mingled with blood and mucus, and depositing a sandy sediment. A stone was readily felt on passing the sound. He had been relieved of a vesical calculus six years previously, by the lateral section. Operation July 22d. The stone was duly grasped by the forceps, but proved to be soft and friable, and

mashed into a pulp under pressure. On introducing the finger into the bladder, it was discovered that the mucous membrane of that viscus was extensively hypertrophied, and drawn into transverse bands or bridles, the result of long-standing cystitis. In the pouches between these bands calculous deposits had been formed. The apprehension by the forceps and the eradication of these pocketed calculi, of which there were four, was a matter of some difficulty, according as they were more or less completely encysted, but after an hour's labor it was accomplished, and the operation closed by thoroughly sluicing out the bladder with tepid water. The deposit in this case was found to be chiefly phosphate of lime, agglutinated by mucus. The patient made a favorable recovery, the wound closing on the fifteenth day.

REMARKS.—Lithotrity was contra-indicated in both these cases: in the former, by the large size of the stone ; in the latter, by the extensive bladder complication. Sir H. Thompson mentions as conditions necessary for lithotrity "a fairly healthy bladder and a small calculus." "When severe bladder mischief complicates the case, lithotrity is out of the question."—Thos. Bryant. Of late, the tide of popular favor has set strongly towards the crushing as against the cutting operation for the relief of vesical calculus. The latest authority, Professor Gouley, of New York, believes that "the time will come when surgeons will take a special pride in showing detritus rather than large urinary calculi." (Treatise on the Urinary Organs, 1873.) In one sense it is to be trusted that this time has already arrived ; that no surgeon prefers to cut when crushing avails as well. The two operations are not antagonistic. Each has its own separate, well-defined domain ; each is indicated by its own set of symptoms, and the one cannot be substituted indifferently for the other. In a clearly diagnosed case, there can be little room for choice or hesitancy. With a small stone, healthy bladder, urethra intact and of good calibre, normal prostate, and the subject an adult with good health and plenty of pluck—lithotrity. With a large

stone, or more than one, diseased or irritable bladder, narrow and sensitive urethra, enlarged prostate, and a patient under puberty, or wanting in moral and physical courage—lithotomy. It is doubtless this popular notion that the one is to flourish at the expense of the other, that lithotrity is to be built up on the ruins of lithotomy, that elicited from Sir W. Fergusson such forcible language as the following: "In the whole course of my professional experience, I know not of a useful operation which has been so shamefully overpraised as lithotrity."

With regard to the method of performing lithotomy, although Dupuytren's bi-lateral operation finds little favor at the present day, yet by those who do practice it, the results are at least as favorable as by the other method, and the mortality undeniably as small. Velpeau remarks that "as a general rule the urine resumes its natural course more speedily after the bi-lateral operation than after any other."

Ingrowing Toe Nails.

A correspondent of the *British Medical Journal* takes the ground that no cutting operation is at all necessary for the complete and rapid cure of ingrowing toe nail. If a small, thin, flat piece of silver plate be bent at one edge into a slight deep groove, and, after the toe has been poulticed twenty-four hours, slipped beneath the edge of the nail, so as to protect the flesh from its pressure, and the rest of the thin plate bent round the side and front of the toe, being kept in position with a small portion of resin plaster passed round the toe, a speedy and almost painless cure will take place; and the patient, after the first day, has the additional advantage of being able to walk. This method has been followed in numerous cases with uniform success.

Dr. Blower, of Liverpool, states, in the same journal, that he has, for the past twenty years, employed compressed sponge successfully in the treatment of ingrowing nails. He renders the sponge compact by wetting and then tying it tightly, until it is thoroughly dry. A bit of the sponge, in size less than a grain of rice, is placed under the nail, and secured by strips of adhesive plaster. In this way the point of the nail is kept up from the toe, until the surrounding soft parts are restored to their normal condition by appropriate means.

Two Naevi Cured.

A male child, aged nine months, had at birth a "mother's mark" on his perinæum and over the pit of his stomach. They were at first flat, but slightly-elevated spots, and quite small. When the patient was about six months old, however, the tumors took on a very rapid growth; that on the perinæum occupying not only the entire perinæum, but a portion of the scrotum also, while that on the abdomen was an inch in diameter. The perineal nævus was kept so constantly irritated by the child's diaper, his urine, and his fæces, and having on more than one occasion bled considerably, I advised an operation for its cure. The mother positively refused her consent to any other procedure than one which consisted in some external application. I determined, therefore, to try the methodical use of Monsel's solution in both the growths. Making a mixture of equal parts of the liq. ferri persulph. and glycerine, I painted not only the nævi themselves thoroughly with this, but I applied it also for some lines beyond the healthy skin, and directed it to be repeated twice daily. In a week both tumors had diminished appreciably in size; and in less than one month from the date of the first application of the iron they had disappeared altogether.—*Jacob Geiger, M. D., in The American Practitioner.*

Treatment of Fissure of the Anus.

A lecture on this subject by Dr. Dolbeau is reported by Dr. Osborne Powell. He observes that each evacuation of the bowels is accompanied by a feeling of something cracking, followed by intense pain; nevertheless, in many instances no fissure can be found, even after the most careful and minute inspection. He consequently regards it as of the nature of neuralgia. It commonly occurs between the ages of eighteen and thirty, and most frequently in women. In the treatment the first thing to do is to abolish the muscular element. Récamier, whose name is inseparable from the history of this malady, well comprehended that the fissural lesion is an element without importance, and he cured several patients by what he termed *cadenced message.* Chloroform was then unknown. He had the patient held by some strong assistants, and he introduced first one finger, then another, and so on, until he had passed his whole hand into the rectum; he then closed his fist, and drew his hand from the intestine. This was a most rational operation, and the

employment of chloroform in the present day permits us to practice it in a much less barbarous manner. Thus, the patient being put under the influence of chloroform, the surgeon introduces his two thumbs into the rectum, and endeavors to bring them in contact with the two ischia; at that moment one hears a strong cracking noise, and the operation is finished. The first stool after the operation is is painful, but this pain is simply the result of the region being contused, and does not in the least resemble the pain which characterized the spasmodic attacks. The succeeding stools are without any pain, and the cure is assured.—*Med. Times and Gazette*, June 8, 1872.

Institutes and Practice of Medicine.

The Symptoms and Causes of Nerve Exhaustion.

From an article in the *Medical Press and Circular*, of May, by Dr. C. H. F. ROUTH, of London, we make the following extract:

The symptoms of exhaustion of nervous power are general debility, great excitability of manner, want of proper sleep, susceptibility of taking cold, neuralgia with various degrees of intensity, eruptions over the body, often of acne, eczema, and inability to walk even short distances without fatigue, palpitation, nervousness, starting at the slightest noise readily, want of virile power, sick headache and backache, or sometimes a creeping sensation down the spine, loss of appetite, irritability of temper, loss of memory, with a great sense of being obliged to force the brain to remember. This loss of memory is often so marked, and more especially in *present* circumstances as opposed to those of the past, as to give rise to the greatest embarrassment. While a person is speaking the whole train of thoughts may be lost and not be again recovered for hours. A person may go to fetch something in a neighboring room, and on arrival there forget what he went for. There is also often an inability to fix the attention on any one subject, or to reading. It is not unusual in such cases to find an undue exaltation of some peculiar talent or property of the mind in a different direction or one totally opposed to former hob-

bies. A dull man becomes a poet, a good-natured, amiable man becomes subject to ungovernable fits of temper, a temperate man craves for ardent drink, and so on. The equilibrium of the brain no longer exists, and its function can no longer be regularly performed. In most of these cases there is an abundance of phosphates passed by the urine. Very rarely indeed do nocturnal emissions occur. When they do occur they are invariably followed by an exacerbation of all the symptoms, especially of the exhaustion and headache. Lastly, copious night sweats may occur, and the slightest exercise brings on copious diaphoresis.

If the case goes on it assumes more melancholy characters. Want of sleep brings its concomitants. The patient becomes extremely depressed and unhappy about himself. Very little makes him sob and weep. Hypochondriac to a degree, life is a perfect burden, and frequently the disease culminates in suicide. The case of a remarkably great man, a judge who of late perished by his own hand, in which most of these symptoms were marked, will be at once recalled to the memory, an instructive, but a very sad example of overwork.

I have noticed in some cases that there is an undue excitability of the senses. The hearing, habitually dull, becomes intensely acute, so that the noise of a door slamming in the streets becomes unbearable; even a pin may be literally heard to fall; the sound of music or a loud voice becomes very painful. Then the sight becomes alike impressionable. Even bright colors are not pleasant to look upon. Scent becomes odious, or the reverse, and the taste altered, as before stated, from its habitual likings. The numbing feelings, the prickings or irritation of the skin, and exalted hyperæsthesia generally appear. Occasionally these changes are so marked that the patient will invariably allude to them as giving him great anxiety.

There is a striking resemblance in these cases of overwork and premature decay to those produced by venereal excesses in both sexes, more marked in cases of spermatorrhœa. In both we have general debility, which is muscular as well as intellectual; fatigue, night sweats, languor, heavy, dull feeling in head, frequently in the back, with occasionally the same creeping sensation. In both the gait is unsteady. In both the memory fails, and in a marked degree. In both there is intense nervousness, frequently with palpitation of the heart. Commonly insomnia occurs in both; urine deposits phosphates in abundance in both; but whereas in mental decay from overwork the nocturnal emissions are very rare, after venereal excesses they may

amount to spermatorrhœa. Nor can I say I have ever seen in cases of mental decay the epileptiform convulsions observed in cases of venereal excesses. The nearest to these have been sudden jerks occurring frequently during sleep, and affecting principally one side of the body.

In the case of women, where this mental declension exists, especially in early life, I have found uterine and vaginal symptoms almost invariably present. In a few I have found it due to habits of imprudence. In the majority the discharges have persisted long, and the eye-sight has, on more occasions than one, deteriorated. In one or two cases it seemed to follow hyperlactation.

It is scarcely necessary to say that overwork in these cases, whether mental or venereal, or both combined, is the cause of this mental declension. I have often been struck, however, at the combination of these in men occupying high positions, and the rapidity with which this continued action hastens an unhappy termination. I have noticed it especially in old men, generals or men of science who marry young wives. A strong old hale gentleman becomes a wreck, perhaps, within the year. I know at this moment a man of science, whose works are well known and much appreciated. To see him at home is to see the most miserable man in creation. He is still a very active man in his sexual duties, and I know acts most unreasonably in this respect. His wife, more sensible than himself in this respect, would restrain him, but to no effect. Fancying death imminent every day, or quarrelling on the slightest provocation, are some of his most troublesome characteristics.

This overwork is not confined to persons of advanced or middle age. I have seen it in children and boys who have been overworked at their schools. A master or parent has been pleased with the precocity of the boy, and has worked him to excess. He has made much progress, and given great evidence of high mental powers as a boy, but the young man has been dull and stupid. The over-excitement of precocious infants has often been followed by tubercle of the brain or hydrocephalus. This is matter of common observation, and it looks very much as if the two circumstasces were in relation of cause and effect.

Where overwork is combined with worry and anxiety the effect is much more rapid and complete.

In older persons the final effect of overwork, whether moral or sexual, is, however, often the same, softening and insanity.

These symptoms I believe to be due, in many cases, to a deficiency of phosphorus in the brain. The idea is not mine.

I was much struck years ago by hearing a casual observation made on this subject by Dr. Forbes Winslow, whose penetrating mind had long seen this connection. Many forms of mania, he said, were due to a deficiency of phosphorus in the brain. We can understand at once how hard work on the one hand, and venereal excesses on the other, should produce this result. In venereal excesses the semen, which is rich in phosphorus, is evacuated so freely that to be formed the body must draw upon that portion of its substance which contains most phosphorus. That portion is the brain. The food we ordinarily take contains an insufficient quantity of phosphorus to supply adequately this waste. The excitement of function also must necessarily exhaust the nervine power.

On Chloral in Therapeutics.

BY DR. A. GUBLER.

[Translated for the WESTERN LANCET, from *Jour. de Pharm. et de Chimie*, June, 1873, by JOHN CALVERT, ESQ., San Francisco.]

In 1869 Chloral made its entry into the Materia Medica, and received on all sides the most ardent welcome. Since then its success has not diminished, and in the space of four years it has conquered a place among the most useful therapeutic agents. Volumes have been published in honor of the new medicament, of which the applications are almost innumerable.

It is pretty certain this cannot last, and that by degrees its uses will be restricted to a narrow limit, which can, even now, be nearly determined.

In this respect the foresight of Oscar Liebreich is being realized. We cannot say so much of the inductions which led this distinguished chemist to predict that in the economy it would be a source of chloroform, and that it would simply act as such.

In the very first steps of their experiments the French observers perceived his mistake. Demarguay first, and afterwards, Léon Labbé and Etienne Goujon, Dieulafay and Krishaber saw that the mode of action of chloral was differ-

ent from that of chloroform. Later, Dr. Ferrand, of Lyons, my learned colleague, M. Goialdés, the lamented Liégeois, each brought forward facts in support of the difference, which is now admitted by several foreign physicians, particularly by Giovanni and Ranzoli in Italy, and by Rajesky, Heidenhains, Arndt and Westphal in Germany.

The author made some very conclusive experiments to the same effect in the autumn of 1869, and in the following year developed in his lectures the doctrine of the *autnomy of chloral*, as narrated in the thesis of Dr. John Faure, his pupil. (Thesis of Paris, 1870.)

The fact must, however, be recognized, that the majority of medical men are on the side of Liebreich, whose idea was also adopted by several learned experimenters and physicians (B. W. Richardson, Horand, Peuch, Williéme, etc.), but above all by chemists of recognized ability, such as Personne, Roussin, Byasson and Follet. The *Journal of Pharmacy* also lately contained a note by M. Byasson, confirming the opinions resulting from his early experiments.

The number and value of these authorities impose on me the duty of submitting the principal arguments invoked in favor of the theory of transformation by Liebreich and his adherents, to a serious discussion.

To the hypothetical conception of the ingenious Berlin chemist, one could (*a priori*) oppose the suspending effect of the *incarcerating action* of albumen, which prevents, in so many cases, the ordinary play of chemical affinities; but I prefer examining the proofs advanced in support of the doctrine which I combat.

First, then, it is thought that the odor of chloroform can be detected in the breath, and not that of chloral. Messrs. L. Labbé and E. Goujon have never been able to detect it, nor has the author. The fact remains then, at least, doubtful. The following is a more admissible argument:

They say that the blood contains a certain proportion of chloroform, easily shown by a simple chemical reaction. In distilling, not at 212° Fahr. (100°C.) as they erroneously did at first, but at 104° Fahr. (40°C.) only, which is not far from the normal temperature of human blood,

chloroform vapor is decomposed in a red-hot porcelain tube; chlorine and hydrochloric acid are formed, which being passed into a solution of nitrate of silver give a characteristic precipitate of the chloride.

Now, the operation is not quite satisfactory, unless it can be proved that it is impossible to obtain the same result with chloral under the same conditions.

But the proof is not furnished. The experiments of Messrs. Horand and Peuch give results which make one think the contrary. In distilling a solution of chloral, they obtained a *precipitate* at the beginning and at the end of the operation. But they supposed it to be produced mechanically (by some of the chloral creeping over), and concluded that chloral does not emit vapors at 104° Fahr. (40°C); which is somewhat surprising in a body more volatile than water, and whose boiling point is 203° Fahr. (95°C.)

The researches of chemists on fresh blood, to which chloral has been added, or drawn from an animal to which large doses of chloral have been given, are not more conclusive as to the necessity of a metamorphosis. Messrs. Horand and Peuch have only been able to detect a trace of chloroform in the blood of chloralized animals, altogether out of proportion to the quantity of chloral introduced into the organism.

We are not warranted then in considering a previous transformation as a *sine qua non* of the physiological action of the new medicament. Besides, the change is not so easily effected as we are asked to believe. It is true that when a caustic alkali is added to a solution of chloral, the odor of chloroform is at once perceived; but the author has succeeded in developing it by placing chloral in contact with the natural Vichy water, or even with that called Eau de Vichy des hôpitaux. Nor has any better success attended him with serum, blood from cups, from blood-letting, from an epistaxis or from a hemoptysis, with normal saliva or with alkaline mucus. These experiments, which were conducted at the Hôspital Beaujon, were witnessed by Messrs. Bourdillat, Dheilly, Fernet, E. Labbée Landrieux, Rigal, etc. They are confirmed by the statement of Horand

and Peuch—that a mixture of blood and hydrate of chloral does not give off an odor of chloroform.

To sum up, it does not appear that the alkalinity of the liquids of the economy is sufficient to bring about a very active transformation of chloral into chloroform. Direct tests for the latter in the blood indicate only the most minute quantity. Above all, a comparative study of the effects of the two agents on man and animals will show that that opinion is at variance with observed facts.

Having submitted frogs, some to the action of chloroform vapor, or to injections of that anesthetic, others to injections of chloral hydrate, or to vapors of anhydrous chloral, the author was satisfied that in the two categories the effects were entirely different, as will be seen by the following *resume:*

I. SUBCUTANEOUS INJECTIONS.

Chloral Hydrate.—Local irritation, spreading by absorption into the cellular tissue. General phenomena, deathlike rigidity.	*Chloroform.*-Pleurosthotonos, opisthotonos. General effects as described below.

II. INHALATION OR CUTANEOUS ABSORPTION.

Anhydrous Chloral.—Violent peripherical irritation. Extreme and prolonged excitation. The animal struggles violently, notwithstanding that the cardiac contractions become rapidly more and more feeble. The heart ceases to beat, the ventricle in enormous diastole. Sensibility to touch, dull. The cornea is already insensible. Catalepsy. Sometimes reflex motions, having the appearance of being voluntary. Death.	*Chloroform.*—Very little or no irritation. Very slight excitation—sometimes none at all. The animal remains quiet. The cardiac rythm gradually weakens. Sensibility destroyed; voluntary and reflex movements cease; sensibility of the cornea continues. Apparent death, with occasional heart-beats. Recovery.

It will hardly be necessary to insist further on the enormous pharmaco-dynamic differences manifested in this table.

Clinical observations give us similar results; they show us that chloroform is inefficacious where chloral succeeds, and *vice versa;* they bring to our view the elective or predominant action of the agents, and assign to each its own particular indications. For instance, Dr. Ferrand found chloroform quite useless in spasmodic hooping-cough, which is quickly relieved by choral.

Mr. Giraldes put children to sleep with chloral, who were thrown into a state of prolonged and violent excite-

ment by chloroform, and all practitioners know that the hypnotic effects of hydrate of chloral are incomparably more rapid, intense, prolonged and certain than those of chloroform. The latter is probably restricted to relieving pains which prevent sleep, by its action on the primary passages, for instance, in lead-poisoning and other morbid causes.

The prompt somniferous effect of chloral furnishes one of the best arguments against Liebreich's theory, because, if the transformation into chloroform were indispensable, the action of a certain dose of chloral should not only be inferior to that of an equal quantity of chloroform, but also more slowly and gradually developed, in proportion to the disengagement, in increasing proportions, of the really active principle.

According to Richardson, only five to seven grains of chloral are decomposed in the blood in an hour, giving rise to three or four grains of chloroform; consequently, it would appear that were the latter given in similar doses, the effect ought to increase by degrees, both from accumulation of doses and of action.

Now, this is not what actually takes place. With half a drachm of chloral, profound hypnotism is obtained in half an hour or an hour, when there would only be, according to the English experimenter, three to six grains of chloral decomposed.

Is this enormous super-activity attributed to three or four grains of chloroform to be accounted for by its being in the nascent condition? This hypothesis, which was advanced by Horand and Peuch, is certainly not capable of accounting for the different effects of the two substances, nor is it admissible in the present instance.

If it were true that four grains of nascent chloroform had the power of plunging a person into a deep sleep, a single dose of eight times the strength, successively disengaged, could not fail to produce toxical or even mortal effects. All that it does is to give a calm and complete sleep of several hours duration, without leaving any troublesome after-effects. This is precisely what gives chloral its great value, and secures for it an important place among hypnotics.

[TO BE CONTINUED.]

Recent Theories on Consumption.

We learn through the *Medical Press and Circular* that Dr. Jaccoud, of Paris, has published a work (*Lecons de Clinique Medicale*) in which he adopts the ideas of Neimeyer about phthisis. It has been thought by most medical men since the days of Lænnoc that phthisis pulmonalis is a disease often hereditary, whose prognosis is almost always fatal, and against which, consequently, therapeutics are almost useless. Dr. Jaccoud says no: slow ulceration of the lung is what constitutes the chronic condition called phthisis. But there exists, he thinks, two very distinct kinds of phthisis: 1st. Pneumonia or cheesy phthisis, which arises without previous tuberculosis. 2d. A tubercular phthisis, due to pneumonic lesions secondary to the evolution of granulations. Thus, M. Jaccoud opposes duality to the unity of phthisis; and, in his eyes, if tubercular phthisis constantly, or nearly constantly, ends in death, this is not the same with pneumonic phthisis, which is curable at all periods of its evolution, that of excavation comprised. He admits, and without any contest, the statistics of Colberg and Slavjansky, who, of 100 phthisical patients, found the first 90, the second 88, cheesy pneumonias with tubercles, and he also professes, without giving the statistics, that pneumonic phthisis is far the most common kind.

We are thus able to understand that M. Jaccoud insists on the differential characters which separate the two species of phthisis, and speaks much of the treatment of the pneumonia which produces the phthisis. But we must say that M. Jaccoud's statistics neither prove the non-fatality of simple phthisis, nor any other point advanced by him. He is even obliged to confess that even when cases of cheesy pneumonia are at first entirely independent of tuberculosis, those which produce phthisis are often complicated in a variably space of time with a secondary production of granulations. On the other hand, he admits that in true tuberculosis, the primary granulations may disappear up to the very last one, from necrobroses and ulceration; on this fact rests the argument that, although no granulations exist at present, they have existed. This is the argument of those who speak of the unity of phthisis.

The last works of MM. Cornill, Groucher and Thaon tend to prove that we may always, in cases of caseous pneumonia, ascertain the presence of tubercular granulations. M. Thaon, who has made a minute study of 250 autopsies of phthisical persons, has arrived at being quite doubtful as to the existence of essential cheesy pneumonia, and is still looking about for the first clear case of it.—*Med. & Surg. Rep.*

Oil Turpentine an Antidote in Poisoning by Phosphorus.

BY HERMAN KOEHLER.

The author published (after he had brought his discovery to the notice of the profession) his observations in a paper, "The Value and Significance of the Oil of Turpentine containing Oxygen in Phosphorus Poisoning, etc. Halle, 1872." He sums up the result in the following sentences:

Oil of turpentine, containing oxygen, is a reliable antidote of phosphorus.

The kind of turpentine, if of this or that species of pine, if German or French (in opposition to Vetter's statement that only the latter has antidotal powers), is of no importance, if it has not only been rectified for some time, and contains oxygen.

The oil of turpentine *only* acts if introduced in the *stomach*, best by gelatine capsules; to emulsify the turpentine oil with the yolk of an egg is not advisable, as the latter contains the oil of the egg, which facilitates the solution of the phosphorus. For every 0.01 gramme phosphorus *one* gramme of oil turpentine as an antidote is sufficient.

The turpentine must be administered as soon as possible after the poisoning. Twenty-four hours after the introduction of the phosphorus the oil of turpentine does not act.

The beneficial action of the antidote is due partly to its containing free oxygen for changing the poisonous phosphorus to the non-poisonous phosphoric acid, and partly by combining with the phosphorus to form the turpentine-phosphorus acid, which is not injurious. This acid, which is only dangerous in very large doses, appears (like laurin and turp. oil camphor) to be eliminated unchanged by the kidneys. It and its salts rapidly absorb oxygen from the air, and oxidize to a resinous derivative of the oil of turpentine, containing phosphoric acid, and the rapid oxidation has prevented an analysis for the ultimate elements.—*Detroit Review of Medicine.*

Phosphatic Food in Debility.

Dr. Routh, of London, gives among others the following instructive cases in the *Medical Press and Circular:*

July 1. Rev. T. H. F., æt. about 60, has been a clergyman for many years, preaching with notes only, but lately has become confused whilst preaching, forgetting the thread;

seems also to have experienced lately want of power to grasp subjects. Recovers himself after a time, but the fear of this makes him very nervous; sleeps fairly, not troubled by dreams; lives in Cheshire, in a damp, cold neighborhood; loss of memory occurs frequently at other times than when preaching; no recollection, especially of names and figures; urine normal, no sediment; total loss of virile power; no backache, but a creeping sensation up from the nape of the neck; no loss of muscular power on either side; eyesight weak; no indigestion; cannot digest lobster; first sound of heart rather prolonged, especially at base; bowels regular in London, more so than in country. Ordered Parrish's food, oysters and other shell-fish, excepting lobster. As his teeth are bad, use a small digestive sausage machine.

July 31. Greatly better. Had profited greatly from the treatment. The mental faculties much improved. States is not the same man. He was now ordered allotropic phosphorus, g. x. daily, after his dinner. My last account from this gentleman was that he had completely recovered.

Mrs. Y., æt. about 42, consulted me in November last for loss of mental power and strength. The catamenia had stopped twelve months, and she too had a large family, with small means, and was much worried by creditors. Her memory is very defective, indeed, gone; she can't remember anything, nor when she puts away any article of dress. When she has a good night she is rather better for a few hours, and then the same state recurs. She is always worse if she has had her attention forcibly called to anything; is very restless at night; her feet being drawn up as if she was going to have a convulsion; is become shockingly bad-tempered; will become violent on the slightest contradiction; feels very anxious and unhappy; bowels open; tongue clean; no lucorrhœa at present, although five months back she used to have them copiously for two or three days in lieu of the catamenia.

Ordered mustard to nape of neck; feet in hot water; half a drachm of bromide of potassium every night in water; sol. phosph. used m. x. *ter. die.* A week after (November 12) was generally better, except that she had one bad day.

On the 19th she was better, but she stated that she had taken the bromide very irregularly, finding she could sleep without it, and the head was much less giddy.

This patient I saw for several weeks after. The treatment was interrupted by a bilious attack, which obliged me to suspend the phosphorus; subsequently it was resumed. She is now greatly better; feels that the phosphorus acts as a sort of tonic, or rather, as she expresses it, can't sleep

without it. Memory greatly improved; some days not so good; but the intervals are longer, and generally her improvement is marked, and she is, in fact, convalescent.—*Medical and Surgical Reporter.*

Feeding by the Rectum.

With reference to the use of the pancreas of animals in the formation of nutrient enemata, a further communication on the subject, by Dr. Leube, appears in the *Centrulblatt fur Medizin. Wisienshaft.* (July 20.) He says that the plan of obtaining the pancreas in the ordinary way from the butcher succeeds very well in the autumn and winter. In the warmth of summer, however, the gland very soon begins to undergo decomposition, and in consequence loses its digestive power, and becomes irritating to the intestine, producing rapid expulsion of the material injected. These mishaps may be easily avoided by making a glycerine extract of the pancreas. This extract is quite equal in digestive power to the fresh pancreas, and will remain good for several weeks. Dr. Merkel, of Nuremberg, has made several trials of this modification, especially in a case of iodine poisoning : and the results have been equally favorable with those following the use of the pancreas itself. He describes the following as the best mode of making the pancreatic injection. The pancreas of a bullock (which is sufficient for three enemata) is finely chopped, and rubbed with 250 grammes of glycerine ; and to each third of this, when about to be used, are added from 120 to 150 grammes of finely divided meat. This mass is digested in the bowel as completely as the meat and pancreas mixture already described. It is important that the mixture of pancreas and glycerine with meat should be injected into the rectum as soon as it is made ; for, if it be allowed to stand, the meat swells up, and the injection is thereby rendered difficult.—*Med. Times.*

Oysters and their Peculiar Digestive Property.

Messrs. Editors: Recently you had a paper from me about pepsin. While trying experiments with it, I was one day requested by one of our most experienced physicians to digest two oysters. I placed them, after thorough washing, with one grain of Sheffer's pepsin, four drops hydrochloric

acid, and one ounce of water, in a test tube, and submitted to a temperature of 100° Fah. At the expiration of two hours, almost perfect solution had taken place, only four and a half grains remaining on the filter, and the residue was of a feculent character.

Thinking over this result, and the matter of eating raw oysters, I came to the conclusion that here we have an organized being, with a stomach, etc., calculated to digest infusoria—as its food—and hence possessing a gastric juice; and if so, what should hinder that gastric juice from digesting even the oyster itself, if submitted to the proper condition.

With oysters, as bought by the quart, there is so much liquor. On boiling a little of this liquor it coagulated, indicating so much coagulable albumen. I took another portion, of two drachms of this liquor, one drop hydrochloric acid, and submitted to 100° Fah. for two hours. It remained perfectly clear, and, on boiling a half of it, there was no coagulation, and, applying Fehling's test, there was the beautiful purple color produced, the whole indicating that there was in the liquor a natural element to produce the result. This experiment I have tried repeatedly; and, to make the matter still more conclusive, I placed one ounce of the filtered liquor in a flask, added to it 120 grains of thoroughly washed and wiped, solid part of an oyster, and five drops hydrochloric acid, and submitted to 100° Fah. for seven hours. On filtering, I had only 17 grains of solid matter left, thus showing that 103 grains of the solid oyster had been digested in one ounce of the liquor.

These facts are, I think, extremely interesting, and though my medical brethren have with me ordered patients, on recovering from exhausting disease, oysters as a part of the diet, and may have done it empirically, it has, after all, been done under strictly chemico-physiological principles, without our knowing it. Very truly yours,

Lowell, May, 1873. E. H. HOSKINS.

The Prevention of Pitting in Variola.

Dr. Alonzo L. Leach, of Philadelphia (*Philadelphia Medical Times*), wishes to call attention to the carbonate of lead, the ordinary white lead of the paint shops, which he has used in several cases of confluent variola with great success. His mode of using it is to add to the paint a sufficient quantity of linseed oil to make it of the consistence of rich cream,

and then, by means of a camel's hair pencil, apply it to the face. This he has done in the vesicular stage of the eruption, but perhaps it might be well to use it even earlier—in the papular stage. A few applications form a complete covering to the face, at once excluding all possible access of air or light. It is soothing to the parts, allaying irritation, and quieting inflammation, and in those cases where he has used it, it has been effectual in preventing the pitting. It commends itself from its easy mode of application, its cheapness, the readiness with which it is obtained, and from the fact that it disposes of the dark room so religiously observed by many practitioners, and that a few applications render all future interference unnecessary.

He adds that for the delirium of the disease the bromide of calcium is of signal benefit. All of the bromides would be equally serviceable, but that of calcium, containing a larger per cent. of bromine, is more decided in its action.

Ergot in Hemoptysis of Phthisis.

Dr. Anstie, in the *Practitioner*, May, 1873, sums up the careful analysis of a number of cases of the above disease treated by ergot. The cases were all very severe, and the remedy evidently had a fair trial. He says we probably have no remedy for hemoptysis equal to it. Beyond the important resource which ergot seems to afford when hemorrhage is actually dangerous in amount, and when such remedies as gallic acid, acetate of lead, muriate of iron, have failed, he says that ergot is likely to be the most appropriate of all hemostatics for the hemorrhage of early phthisis, when it may be hoped that the lung has as yet undergone very little structural change. The prompt arrest of oozing into the air cells, can probably be in no way so effectually accomplished as by the employment of ergot.

Gynecology and Diseases of Children.

Case of Absence of the Uterus.

BY ALFRED T. LIVINGSTON, M. D.

For permission to publish the history of the following case, I am indebted to Professor James P. White, under whose charge the case came, and through whose kindness I had repeated opportunities for its observation.

The case possesses sufficient interest as an anomaly to warrant its publication, and taken in connection with its practical relation to the diagnosis and treatment of amenorrhœa, it is doubly interesting and important.

Mrs. B. is now thirty years of age, and has been married six years.

While contemplating marriage, a few months previous to that event, *having never menstruated,* she consulted a doctor in reference to this fact.

This person, Dr. V. S., examined her *simply per vaginam,* and informed her that she had occlusion of that organ. He proceeded at once to operate for the relief of her trouble, by making an incision through what he supposed, no doubt, to be the occluding membrane—an imperforate hymen.

He assured her that she possessed the organs of her sex in completeness ; and the hemorrhage that occurred after the incision was stated to be the retained catameniæ.

On the assurance of the doctor that she was a perfect woman, she married six months after the operation.

During the six months intervening between the operation and her marriage, the patient observed that in micturition all the urine did not come from the normal outlet of the urethra, but that a portion came down the vagina.

The urine did not flow from this new channel except when she urinated voluntarily, so that this urethro-vaginal fistula, for such it must have been, did not give her especial trouble or discomfort.

Soon after marriage, however, she begun to have non-retention of urine. She was then obliged to wear constantly a sponge, napkin, or other appliance for the purpose of catching the dribbling urine. While about on her feet, the urine flowed away as fast as secreted, but when lying down it was retained for a time only to gush forth, *en masse,* on the instant of rising.

Now, this change in symptoms, following marriage, can only be accounted for by supposing that the introduction of the male organ either extended the fistulous opening, which the doctor had made through the uretho-vaginal wall, so that it involved the vesico-vaginal wall, thus becoming a urethro-vesico-vaginal fistula ; or, more gradually, dilated both the fistula and the portion of urethra between the fistula and base of the bladder ; and so largely and thoroughly dilated them, that, with the more or less frequent sexual intercourse ever since, they have not been allowed to contract. It is difficult to say precisely which of these two things occurred ; and it is of no consequence, except if the latter supposition be correct, the patient will more

probably, in fact, almost certainly regain complete control over the sphincter vesicæ—in other words, perfect retention of urine, when time and cessation from the act of coition will have allowed the upper portion of the urethra to contract.

The complete incontinence of urine, following marriage, continued, with all its distressing symptoms and accompaniments, until a recent date.

Desirous, as she might well be, of relief, Mrs. B., about a year ago, consulted another physician, Dr. P., of Michigan.

Upon examination, he informed her that in consequence of its continued idleness, the urine having for so long a time passed through an abnormal channel, *the urethra had closed*, its walls, being in contact, had grown together.

Now, besides the great improbability of such an occurrence, there is very good evidence that it did not take place, as we shall presently see.

But Doctor P. thought it best to open (?) the natural passage, before attempting to close the false one; and this he did, it appears, by dividing with an incision the portion of the urethro-vaginal wall that yet remained, viz: from the orifice of the urethra back to the fistulous opening.

Greatly dissatisfied with *this one*, Mrs. B. did not allow the Dr. to make his proposed *second* operation; but selected Dr. White as the one to whom she would look for relief from the condition that rendered her life so miserable.

She accordingly came to Buffalo in October, 1872, and was then operated on by Dr. White, assisted by Drs. Rochester, Potter, and myself.

The patient was a fair and delicate person of slight build and medium stature, possessing the mammæ well developed, and the external genitalia perfect. The vagina, however, was a mere *cul de sac*, little more than an inch in length. Proper examination discovered, also, the presence of the ovaries and the *entire absence* of the *uterus*.

The urethra and vagina, as far as to the summit of the latter, had been converted into a single tube, by the incisions through the intervening wall, made as above described.

This urethro-vagina was connected with the interior of the bladder by a large but short canal, which was either the neck of the bladder, or the vesical end of the urethra, greatly dilated as before suggested.

A deep groove, smooth and lined with mucous membrane, occupying the anterior wall of the common canal just mentioned, was the remains of the urethra, and the smoothness

and gloss of its surface indicated clearly enough that the urethra had never been *closed*, as Dr. P. asserted.

The operation by Dr. White was made, by carefully paring the edges of this divided urethro-vaginal wall and bringing the freshly cut surfaces together, by means of seven or eight interrupted silver sutures.

A portion of the surfaces failed to unite on account of pressure, made by the catheter used in the after-treatment, against the lips of the wound. It was made necessary by this to repeat the operation in part, which was done some three weeks subsequently.

The most important lesson we learn from the history of this unfortunate person, is the care that should be exercised in determining the *cause* of amenorrhœa before resorting to treatment. *Occlusion* of the vagina should be distinguished from *absence* of the vagina, or the uterus, or the ovaries.

Had Dr. V. S. (it is due to the profession to say that he is a quack) properly examined his patient, it would have been an easy matter to explain the absence of menstruation, and it would likewise have saved her many years of no little suffering, which his treatment (!) induced; not to speak of the embarrassing and unhappy position in which his untrue decision has placed both the patient and her husband.

The position of the uterus being between the bladder, in front, and the rectum, behind, its presence or absence is readily determined.

If a sound or catheter be introduced into the bladder, it will be distinctly felt by the finger passed up the rectum—*provided* the uterus be absent; and will not be so felt if present. Again, if the finger in the rectum plainly detects the other hand placed upon the hypogastrium, the absence of the uterus may be inferred; and, if to these tests be added that of examination per vaginam, with indications in each instance of the absence of the uterus, no doubt need be entertained of the certainty of that condition. The presence or otherwise of the ovaries may be concluded upon, by seeking for them with the finger of one hand well up in the vagina, or better, in the rectum, and the other hand placed over the right and left iliac regions respectively. In the patient we are considering, the absence of the uterus and the presence of the ovaries were determined upon only, after the examinations I have indicated.

The existence of ovaries of normal size, together with the perfect development of the mammæ and external genitalia, referred to above, would lead us to suspect the occurrence of a menstrual molimen, and this we fail to obtain. At

regular intervals of about a month, a sufficient number of the symptoms of menstruation occur to indicate their character and cause, although no sanguinolent discharge takes place, for the obvious reason that there is no secreting surface; the menstrual hemorrhage, as is well known, taking place from the lining membrane of the body and fundus of the uterus.

Under these circumstances the existence of a vicarious hemorrhage would suggest itself as quite possible, but this has not been observed.

There exists, moreover, in this patient, the venereal appetite, and coition is attended with pleasure, although every introduction of the penis has been directly into the bladder.

This contact of a foreign body with the mucous membrane of the bladder very naturally induced cystitis, which became chronic. The purulent discharge that occurred was called leucorrhœa, and various astringent injections were used, but without giving relief.

The bladder, owing to the perfectly free exit of the urine from its cavity, has become very firmly contracted, and will but gradually return to its normal dilatability.

The patient can now retain her urine quite well during two or three hours, and the prospect is good for her final perfect recovery.—*Buffalo Med. and Surg. Journal.*

A Monstrosity.

Eds. Med. and Surg. Reporter:—In the afternoon of May 12th, 1872, Mrs. B. gave birth to a rather a remarkable monstrosity, of which I send you a short description.

This being her seventh parturition, and having a roomy pelvis, delivery was accomplished quickly and without difficulty. The body of the child, a female, was of ordinary size and well developed in all its parts; attached to it by a small pedicle was the body of a second child, the lower part of which was reasonably well developed; buttocks large, the articulations of the lower limbs well formed, feet and toes complete, yet inverted, the upper portion of the body very much smaller, terminating with the rounding of the shoulders and acephalous, the arms rudimentary and terminating in one finger.

The pedicle connecting the two was short, and about an inch in diameter, located in the upper epigastric region, the bodies facing each other.

The external genital organ, that of a female also, was well

developed, and the urine was regularly voided. The anus was imperforate.

At the earnest solicitation of the parents, and after several careful consultations, it was decided to try the operation of separation, the child being two weeks old.

Present during the operation were Drs. S. M. Swann, W. B. Lowman, F. Schill, and J. C. Wilson. Dr. Swann applied a strong ligature around the pedicle, which evidently produced extreme pain, as the child cried vigorously. Small quantities of ether were administered at intervals, sufficient to control the pain, but not enough to produce complete etherization. Gradually the temperature of the isolated body decreased, indicating that the circulation had been intercepted.

After waiting a while it was decided to remove the isolated mass, which was done by a circular incision around the upper part of the pedicle, leaving a sufficient button to prevent the slipping of the ligature. As the incision was extended a rudimentary spinal column was discovered extending through the pedicle, also some of the small intestines were found to be common.

Upon examining the mass after separation it was found that the kidneys and a small bladder were the only independent organs. The kidneys were abnormally large. The mass after separation weighed between three and four pounds.

The child died in about four hours after the operation, and unfortunately the opportunity for a thorough post-mortem examination was not granted.

Respectfully,

J. R. CALDWELL, M. D.

Johnstown, Pa., July 7, 1873.

[Dr. Caldwell transmits a photograph of this singular monstrosity, exhibiting the connection he describes very distinctly.—EDS. REPORTER.]

Connection between Laceration of the Perineum and Prolapsus Uteri.

We associate these two articles together, as evidence of the entirely opposite views held by careful observers upon the action of the vagina, sustained by the perineum in giving support to the uterus; the former teaching that rupture of the perineum "is not a cause of prolapsus, or procidentia

uteri;" that "the perineum has nothing to do with the maintenance of the uterus in its natural position," and that the only influence a rupture can have is to favor a more direct procidentia, in cases where the causes for the displacement are in action. Dr. Milne takes a directly opposite ground, maintaining "that the perineum, in its normal state, does aid in supporting the uterus, and, when lacerated, favors the descent of that organ," and "that rupture favors prolapsus uteri by destroying the curvature of the vaginal canal, and making it approach the perpendicular." Various arguments are adduced by each writer in proof of his own particular views and opinions, and the society appears to be very much divided upon the question—Drs. Keiller, Bell, James, Young and Cuthbert rather favoring the views of the former, and Drs. Ritchie, Gordon, Murray and Bruce those of the latter. ALEXANDER MILNE, M. D.—*Transactions of the Edinburgh Obstetrical Society.*

A Case of Precocious Menstruation.

MESSRS. EDITORS:—There is a little girl, in one of the families where I am called in my practice, now in her sixth year, who, last September, soon after completing her fifth year, complained to her mother of pelvic pain and the usual symptoms of approaching menstruation. She soon had a sanguineous show, which continued for three days and then ceased. The mother of the child called my attention to the fact. I could not account for it, and as the child was in apparent good health, no medication seemed called for. I thought then it was a hæmorrhage from some strain or injury that would not occur again, but it has continued regular once in twenty-eight days ever since. She is not precocious in any other respect, not large of her age; but the usual change in form suited to a young lady fifteen or sixteen years of age, has taken place, so that she looks like a little woman. I learn an aunt of this child became regularly menstrual at six years of age and continued till she was thirty-eight. I have never met with a case of the kind before, and I think such cases must be very rare. I should expect under such circumstances the menopause would commence correspondingly early.

Respectfully yours, R. K. CLARK, M. D.

SOUTH HERO, VT., May 13, 1873.

Death from Criminal Abortion.

Dr. T. Gaillard Thomas reports, in the *American Journal of Medical Sciences*, a singular case of death following an attempt at abortion. A woman, æt. 32 years, wife of a physician, thought herself to be pregnant, and in order to obviate the discomfort of child-bearing, introduced into her vagina a *steel wire* seventeen and a half inches in length. The wire was thrust upward its whole length, and then slipping from her hand disappeared entirely. Death ensued in sixteen days. At the autopsy, it transpired that the wire had penetrated the vaginal wall at the left of the uterus, and had then passed below the intestines, over the large vessels on the spine, across the abdomen to the liver. Striking the right lobe of this organ, it had glanced backwards to the diaphragm; had penetrated this, and, plunging into the lung, entered its tissue for the distance of two inches. The right lung was found to be in the third stage of pneumonia, and an abscess had formed in its lower portion where the wire had penetrated.

Dr. Thomas gives a satisfactory explanation why gastrotomy was not resorted to.

A Case of Congenital Variola in a Foetus of Five Months.

BY PHILIP ADOLPHUS, M. D., CHICAGO.

Dr. Gilmore requested me to see a woman residing in Polk street, who had spontaneously aborted a dead fœtus of five months, which, he said, was covered with small-pox pustules. This case came to me under my supervision as a Sanitary Inspector.

Its peculiarity will at once be appreciated when the woman's history is told. Her husband had had a mild attack of varioloid some weeks previously. Dr. Gilmore revaccinated the woman above mentioned, as well as the other members of the family.

The woman remained well for ten or fifteen days, when, without having the slightest trace of varioloid, she aborted, and a dead fœtus of five months made its appearance, covered with pustules. I examined the woman and the fœtus. The woman had not the slightest trace of an eruption.

The fœtus presented the following appearances: The disease was of the discrete variety; perhaps there were about a hundred pustules over the body. Having been

kept from the open air and bathed in the amniotic fluid, the pustules were whitish and flattened, and resembled the pustules met with on the mucous membrane of the mouth; many had the slight pseudo-membranous disk, which covered the pustules, removed on exposed ulcerated surfaces.

This is a case in which the fœtus only had variola before birth, though the mother had not been afflicted with it.

"Some years ago, a woman in the wards of Professor Tonquier was delivered of a dead child, affected with small-pox, although she had herself been vaccinated."

"The illustrious Mauriceau relates that his mother, when in the last stage of her pregnancy, had the misfortune to lose the eldest of her three sons by small-pox, to whom, notwithstanding her condition, she was unceasing in her attention, and that at his birth, which occurred the day after the death of his eldest brother, he presented four or five pustules of small-pox." (Cazeaux, fol. 566.)

"Ebel, Kesler, Watron, Jenner, Denent, Royer, Bouchut, and Chaigneau, have all seen children born with variola, the mothers being free of the disease. In several of these cases the mothers having been vaccinated were insusceptible to the epidemic influence, yet were able to communicate the virus to the fœtus." (Ibid. fol. 447).—*Chicago Medical Journal.*

Case of United Twins.

Dr. Minot said he had been called, Dec. 4th, by Dr. J. F. Jarvis, to see a poor woman in North Grove street in her second labor, which began twenty-four hours previously. The pains became active about midnight, when the midwife in attendance, finding the feet in the vagina, sent for Dr. Jarvis, who discovered that it was a case of twins. Not being able with all his efforts to deliver the first child, he sent for Dr. Minot. It was discovered that the children were united by their abdomens. After great difficulty a hook was got into the mouth of the presenting child, and the head was drawn down. On account of the exhausted condition of the woman, the band of union was then severed, and the first child was removed. The second child was then easily extracted by the feet. On searching for the placenta, it was found that there was a rent, about four inches in length, completely through the walls of the uterus, on the right side, at the juncture of the body with the neck. The union of the twins was immediate, about three inches in length, between the umbilicus and the sternum. There

was but one cord. The woman died two hours after delivery. She got three drachms of fluid extract of ergot before Dr. Minot saw her. The children were both females, of large size, their united weight being about fifteen pounds.—*Boston Med. and Surg. Journal.*

Medicine for Children.

In prescribing for children, the proper dose of a medicine cannot always be calculated according to the age of a child, and does not in all cases bear the same proportion to the quantity suitable for an adult. For certain drugs children show a remarkable tolerance, while to the action of others they show as remarkable a susceptibility. Thus, opium, it is well known, acts upon a child more powerfully than would be expected, judging from the mere difference of age. It should therefore be given to infants with a certain caution, especially if the child be enfeebled by disease. It is, however, a medicine which is of especial value in the treatment of the diseases of infancy, and may be given without fear, if care be taken not to repeat the dose too frequently. Belladonna, on the contrary, can be taken by children in large quantities. A child of two or three years old will bear, without inconvenience, a dose which in an adult might produce very uncomfortable symptoms. Lobelia, again, is a remedy which is very well borne by children. Dr. Ringer has given it to "very young children" in doses of five minims every hour, and in no case has he noticed any ill effects to follow its administration. Arsenic should be given to children over five years of age in the same dose as that used to adults, and infants of a month or two old will take one drop of Fowler's Solution, three times a day, with great benefit in cases of gastric catarrh. The influence of mercury upon young children deserves remark. It seldom, in them, produces stomatitis or salivation; but an excess of the drug is not therefore harmless; its influence is seen in the irritation of the alimentary canal which it so often excites, and in the profound anæmia which it induces. The anæmia which is so common a sequence of constitutional syphilis in infants is, no doubt, often a result of too long-continued mercurial treatment.—*Med. Times and Gazette.*—Dr. EUSTICE SMITH, *of London.*

Pepsin Wine in Feeding Infants.

A writer in the *Dublin Journal of Medical Science* makes the following suggestions with regard to the artificial feeding of infants:

Artificial feeding by bottle is a great improvement upon the old system of spoon feeding, as the act of sucking stimulates the salivary glands and insures due insalivation, which is an important part of infantile digestion. With such an aid the stomach of most *human* infants is vigorous enough to fall into the way of digesting *cow's* milk, properly diluted, and mixed with sugar and cream to assimilate the proportions of its constituents to human milk; but besides the relative excess of caseine and albumen contained in cow's milk when compared with human, the congulum of the latter is soft, flocculent, and not so thoroughly separated from the other elements of the fluid as the firm, hard curd of cow's milk is from the whey in which it floats.

When we reflect that the digestive organs of the *human* infant are found to digest human milk, and the force of its gastric juice is proportioned to the solution of its soft, flocculent coagulum, we can understand why the solvent power of its gastric juice is sometimes unequal to redigesting the firm curd of cow's milk. When such is the case, acetus fermentation is quickly set up; offensive gases distend the stomach and taint the breath, vomiting and diarrhœa set in, and in process of time the little patient sinks into a miserable state of marasmus and dies. The remedy for this state of things is simple, for although we cannot change the elementary composition of the milk we have to use, we can introduce into the infant's stomach a digestive power proportioned to the food it has to use—the organic principle of digestion taken from the stomach of the calf.

It is now many years since I first applied this simple theory to practice in the case of one of my own children, who, when about three or four months old, was reduced to a condition of marasmus by vomiting and diarrhœa due to imperfect digestion of cow's milk. I ordered him fifteen or twenty drops of pepsin wine, to be given immediately before or after each meal. Soon after commencing it he began to improve, and by degrees all bad symptoms vanished, and nutrition was quite restored.

Shortly after, a child born in England, and bottle fed, was brought over to this country when about six months old; he was also suffering from intantile dyspepsia, and was pining away in a listless, apathetic state, quite indifferent to surrounding objects, and appearing as if he would lapse into idiocy from mal-nutrition of the nervous centres. I immediately ordered him pepsin wine, which produced such beneficial effects, that after it had been continued about twelve months, he had become a bright, intelligent, well-nourished child.

Since then I have never recommended a wet nurse, and have used pepsin wine largely in dispensary, hospital and private practice, and have seen many apparently hopeless cases recover under its use.

Constipation in Children.

Dr. Alois Monti (*Wien. Med. Presse*) contributes an exhaustive paper on this subject. He thinks it due to the defective development of the muscular tissues of the intestines, and to the peculiar form of nourishment at this period. He sums up the various causes: 1. Mechanical impediment, as in congenital deformity, imperforate anus, invagination, hernia, etc. 2. Defective nourishment, as from congenital defects of the lip and throat, too little secretion of milk, etc. 3. Faulty nourishment, as from excess of caseine or defect of fatty matters in the milk, bringing up by hand, starchy food, etc. 4. Deficiency or diminution of the peristaltic movements of the intestines, atrophy, etc. 5. Diminution of the intestinal secretion, as in long-continued diseases in consequence of anæmia. Constipation is further a symptom of diseases of the brain and spinal cord; also a consequence of deficiency of drinks, of the use of stringents, presence of ascorides, fruit stones, etc.; and in other children it arises in consequence of deficient bodily exercise. The cause suggests the remedy—cod liver oil and enemata of cold water, mineral waters, manna, etc.—*American Practitioner.*

Ophthalmology and Otology.

On the Use of Atropia in Diseases of the Eye.

BY GEORGE H. POWERS, M. D., SAN FRANCISCO.

The value of atropia as a topical application in inflammation of the eyeball cannot be over estimated, and its use is so often neglected in the early stages of iritis and corneitis that it seems proper to call the attention of the profession to the subject.

Atropia is a sedative in its action, when used as a collyrium, and causes great relief in most cases of photophobia by virtue of this property, but its chief value is in its action upon the iris, not only by expanding the pupil and withdrawing it from contact with the central and most prominent portions of the lens, thus preventing the deposit of plastic lymph in the pupil, and the formation of adhesions (synechiæ posteriores), but also diminishing the tension of the eyeball by rolling up the iris into the most compact form. In this way, too, the vessels of the iris are compressed, and congestion and turgidity of that body prevented.

In the healthy eye, a drop of a weak solution of atropia, gr. ¼ ad ℥j, will cause the pupil to dilate so widely that only a very narrow rim of iris will be visible, while in an acute iritis, well established, even if no adhesions have occurred, a solution of four or six grains to the ounce will produce no dilatation until repeated several times; and even then it will be sometimes be found impossible to carry the expansion further than one or two lines.

It must be remembered that, when contracted, the pupillary margin rests upon the surface of the lens, and that when dilated widely this contact is prevented; it will then be seen how important it is in all cases involving the iris to produce extreme dilatation as early as possible, and before the turgid condition of the iris or strong adhesions of the pupils prevent.

In all affections of the deep structure of the eye atropia is indicated, and in all diseases and injuries of the cornea it is extremely serviceable. The best preparation is the solution of the sulphate of atropia in distilled water, and a pure sulphate needs no addition of sulphuric acid, neither does it cause any smarting of the conjunctiva. A sulphate sufficiently acid to cause a burning sensation of the lids is not fit to use, and no acid can be added to increase the solubility of the salt without causing irritation and destroying the sedative character of the drug.

It should be stated that there are on record cases of intolerance of atropia, and I have seen one such when

I was attending the ophthalmic department of the City and County Hospital some years since, but these are very rare.

In all injuries or wounds of the cornea, except at its extreme periphery, the early instillation of a solution of atropia is demanded; in most cases a solution of one grain to the ounce is sufficient, a drop or two to be introduced upon the inner surface of the lower lid every ten minutes until expansion of the pupil is produced, and afterwards repeated often enough to maintain complete dilatation. Where the wound of the cornea is peripherical, atropia is contra-indicated, as its use would favor hernia of the iris.

In ulcers of the cornea, and in all inflammations of that structure, the constant use of a weak atropinated solution is one of the most important remedies. In all diseases involving the iris the instillation of a stronger preparation of atropia, gr. ¼ ad ℥j should be commenced at once and repeated at intervals of five or ten minutes until full expansion is produced, and afterwards repeated each hour, or as often as is necessary to maintain dilatation. If, however, it is found that adhesions have already formed, so that the pupil does not begin to expand during six hours of this treatment, it should be entirely discontinued, as its use under these circumstances only aggravates the symptoms.

It is also necessary to watch the patient closely for signs of narcotism, as in some instances the lachrymal ducts are so large as to admit the passage of a considerable quantity of the solution of the throat. If, then, the patient complain of a bitter taste and dryness of the fauces, the further use of the remedy must be omitted for some hours and then recommenced with caution. I have known of cases where patients have been very strongly poisoned in this way; as, for instance, in one case the patient left an oculist's office and wandered about the streets for hours, delirious, in consequence of an instillation of atropia, frequently repeated without due caution.

I have seen many cases of iritis, both idiopathic and specific, where every remedial measure had been used *except* the atropia (which used alone would have saved the eye),

and where this had been neglected too late to be of service; and it is an every-day occurrence for an oculist to be called to see an iritis or peratitis which has been treated for some time as a conjunctivitis, by astringents which only serve to aggravate and intensify the real disease.

I would say to the general practitioner, that in every case of ophthalmic disease where there is the least doubt of diagnosis, it is far safer to use atropia than astringents of any kind.

Traumatic Ulcer of the Cornea with Hypopion and Intra-lamellar Abscess. Incision of the Ulcer and Abscess, followed by Speedy Recovery.

BY N. J. MARTINACHE, M. D., SAN FRANCISCO.

J. C., 17 years old, came to me a short time ago, to have his right eye attended to. Two weeks previous to his visit, while he was harvesting, a piece of straw struck him in the eye. He did not pay any attention to the accident; but a few days afterwards, the eye becoming red and painful, he consulted a local physician, and as he did not experience any relief after a week's treatment, he came to San Francisco.

June 25th. I saw the patient for the first time; the accident had occurred about three weeks before, and the eye was in the following condition: The lids were closed, the upper one red and swollen at the margin, where the skin was of a blue venous color all along the edge of the lid. The patient could not open his eye, and any attempt to examine by daylight produced an energetic blepharospasm. It was with gas-light only that I could make a good examination. On the centre of the cornea there was an oval ulcer, the vertical diameter two lines and a half, the horizontal one line and a half; the center of it was depressed, but not very deeply—about one third of the thickness of the cornea. There was some white matter on

the edges, and all the surface of the ulcer was covered by a soft and cheesy substance, which was gradually thrown off. At the inferior part of the anterior chamber there was a hypopion of a whitish matter, half a line in height in the widest part; around the cornea a considerable perikeratic injection was to be seen, with an œdematous ring, through which could be noticed the large vessels reaching the edges of that membrane. The patient had violent circumorbital pains, lacrymation and photophobia, as already observed; the general health was rather poor; lips excoriated, symptoms of malaria; patient very low spirited.

He was ordered good diet, quinine, atropine, poultices and confinement in a dark room.

June 26th. Hypopion more considerable, a line or more in height, other symptoms the same or augmented.

Without any delay, I took Graefe's cataract knife, and puncturing the cornea at the inferior part of the ulcer, I made a counter-puncture at the upper part, so as to make a vertical incision of about two lines. The aqueous humor escaped, the iris was pushed forwards in contact with the posterior surface of the cornea, and the pupil was immediately contracted. Atropine and a bandage were applied.

June 27th. Eighteen hours after the operation the hypopion diminished about three fourths, the perikeratic œdema one half less, the circumorbital pains disappeared; ulcer cleansing; the patient felt very well.

June 30th. Pus entirely reabsorbed; ulcer filling up; no pain; very little lachrymation or photophobia.

July 7th. From the first of July I touched when necessary the edges of the ulcer with a weak solution of nitrate of silver, and they are now flattened and the surface is even, except at the upper part, where are two white points, each about the size of a pin's head; in front of them there is a small depression, which has no tendency to fill up; and as the disease is protracting, I made another paracentesis in that spot.

In the evening, *i. e.*, six hours afterwards, striking improvement; the edges of the incision white, a little swollen

and in perfect contact, but not adherent yet; the surface almost even; no pain or reaction.

July 8th. Twenty-four hours after incision, the edges are well united; on the whole, good aspect.

July 10th. The process of repair is going on rapidly, and the epithelium is regenerating. Occasionally I use a weak solution of nitrate of silver to touch the ulcer with, by means of a camel's hair brush.

July 16th. The epithelium is now entirely regenerated all over the surface of the ulcer, and a very thin and narrow leucoma is visible on the centre of the cornea.

In publishing the foregoing observations my intention is to show the benefit to be derived in such cases by a premature incision of the ulcer. It is not long since that paracentesis through the ulcerated part of the cornea was first proposed; and before being accepted by the minority of the profession, it had a hard struggle in making its way and overcoming every kind of obstacle, often imaginary or arising from a dread of innovation.

In every work on Ophthalmology sentences like the following are to be found: "We sometimes meet with a peculiar form of funnel-shaped ulcer, which shows a very great tendency to extend in depth and perforate the cornea, obstinately and persistently resisting all and every kind of treatment, until perforation has taken place, when it at once begins to heal."

These last words are certainly indicative enough of a premature paracentesis; and if this method is not more popular, it is simply because we do not thoroughly understand nature's reparative process, which is invariably based on the peculiar nutrition of the tissues.

It is now many years since it has been the rule among surgeons to open an abscess as early as possible. The above quotation shows that in respect to the deepening ulcers of the cornea, the spontaneous opening is unfortunately too often waited for by physicians, and I think that the more frequent application of this surgical precept: "divide to unite," will be of a great benefit in the treatment of cornean ulcers, particularly when a previous contusion has taken place.

Translation.

Concerning the Choice of the Place of Incision in the Membrana Tympani for the Operation of Tenotomy of the Tensor Tympani.

BY PROFESSOR JOSEPH GRUBER, M. D.,
Aural Surgeon to the General Hospital in Vienna.

[Translated from the *Monatsschrift fur Ohrenheilkunde*, Berlin, April, 1873, by CHAS. S. TURNBULL, M. D., of Philadelphia, Resident Assistant Surgeon to the New York Ophthalmic and Aural Institute.]

All authors who have contributed to the literature of this subject, at the head of which stands F. E. Weber (Weber—Liel), whom we must thank for this interesting addition to operative otology, agree that the anterior segment is the best place for making the incision for tenotomy, in front of the handle of the malleus, through the anterior segment.

Weber makes the incision about 1 to 1½ mm. in front of the malleus, a little to one side, and below the short process.

Carl Frank says, under favorable conditions of the bony wall, and sufficient area of the membrana, the method of Weber is to be recommended in all its details.

Even if the anatomical relations are unfavorable, viz., when the meatus is very narrow, the anterior wall, as is often the case, appears to bulge into the lumen of the canal, Frank still recommends the method of Weber, but supplies a simpler instrument for tenotomy, which he introduces through the anterior segment of the membrana, as described in his work.

In my first article published on this subject I answered the following question: In what part of the membrana must the incision be made in order most easily to reach the tendon of the tensor-tympani muscle?

In this manner I would consider, as does Weber, the most practical position for making the incision is in front of the handle of the malleus, in the anterior segment, but many possible complications, and slight individual conditions, will influence the choice of the field of operation.

Apart from the consideration that, as I have more fully explained in the above-cited paper, such a method of operation is best calculated to avoid injuries to important parts, there is another indication for the selection of this point in the fact that the tendon of the tensor-tympani, as I first taught, and as Weber has lately confirmed, is that the tendon of the tensor-tympani muscle is not only, as formerly described, inserted into the medial edge, but also on the

anterior surface of the handle of the malleus, where the tendon is most easily reached through the anterior segment of the membrana, especially by using my simple tenotome, which I think has some advantages over Weber's very ingeniously constructed instrument.

Frequent examinations, and much practice upon the cadaver, with clinical observations and experiments lately, particularly made in cases where I have operated, have now taught me that my first statements about this method were perfectly correct, and I am now able to furnish some more definite data respecting the choice of the place of incision in the membrana.

In the first place the position of the handle of the malleus is of great value in almost every case, as it determines the choice of the field of operation. I am now fully convinced that this position leads us to infer, with sufficient certainty, the course of the tendon, provided other complicated conditions do not intervene.

In explanation of the above mentioned course I offer the following: If we examine a number of macerated temporal bones, especially those in which the ossicles remain in their natural position, we will be convinced that the "rostrum cochleare" around which plays the tendon in order to be inserted in the handle of the malleus at the end of the septum canalis musculo tubarii does not always terminate on the same point on the wall of the labyrinth, but this septum sometimes extends more or less above the oval window towards the posterior wall of the tympanum.

In most of the temporal bones examined, the semi-canalis of the tensor tympani muscle terminated about the middle of the upper edge of the oval window, and in some cases it reached the posterior half of the edge, and only in a few cases it did not reach the middle.

Though individual differences exist, we still see, when the parts concerned are preserved in situ-naturali, in the fresh temporal bones, or when in macerated ones we unite by an imaginary line the two points which are connected by the tensor-tympani, the rostrum and the handle of the malleus, that the tendon does not take in its course the direction as is generally given from within outward ; but that the tendon in most cases, in order to reach its insertion, should go from above, behind and within, in a direction downward, forward and outward ; and it rarely takes the direction given it by the older anatomists.

As a consequence, the effect of a contraction of the tensor-tympani muscle must manifest itself differently according to the course and insertion of the tendon into the handle of

the malleus ; hence we see so great a variety in the position of the handle and also in the condition of the membrana, caused bv the contraction, or what is equivalent, the retraction of the tendon.

The extremes of this great variety of appearances, caused by a sudden contraction, relatively retraction, are given in these two positions of the handle of the malleus ; one of these positions we will designate as *the handle of the malleus appears directly drawn inward and apparently shortened,* whereby the membrana presents its greatest concavity outward ; while the other extreme is that the position of the handle of the malleus in which it is drawn rather *backward than inward, more or less, in the horizontal plane from before backward.* In the latter case the relations of the two segments are strikingly altered, for the posterior segment appears smaller in proportion as the handle is drawn backward, while the anterior segment is apparently or actually larger.

It needs no further explanation, for when these abnormal positions in the handle of the malleus depend immediately upon the course and insertion of the tendon, we can infer from the position of the handle the course and insertion of the tendon. If, for example, the handle is drawn directly inward, we can assume that the "rostrum cochleare" is situated nearer the anterior segment of the wall of the labyrinth, therefore the tendon runs more directly from within outward ; while, when the malleus is drawn far back the rostrum is certainly situated farther behind on the inner wall of the tympanum, and the tendon takes the direction from behind, within and above, forward, outward and downward.*

Having thus carefully weighed the subject, we can easily infer, in any given case, from which place we can best reach it. *It therefore follows that a general rule cannot be established, but in making tenotomy, the condition of the membrana, and especially the position of the handle of the malleus, must determine the choice of the field of operation.*†

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* As a matter of course, I do not take into account all possible but unusual individual peculiarities and complications, which may exert an influence upon the excursions of the handle. Many of them exert a decisive influence, but their diagnosis is not difficult, and the practitioner can easily estimate their value.

† I have frequently been able to see the tendon through the posterior segment of a transparent membrane, and in a case recently operated on by me before my class the tendon was very easily recognized.

Injecting Medicated Fluids for Deafness.

Dr. Chisholm reports the case of a gentleman, aged 23, from Texas, who has been so deaf for the past three years, in the left ear, that he can hear absolutely nothing with it. Knowing himself to be completely deaf in this ear, and believing his case incurable, he went to Baltimore for treatment, solely to gratify his friends at their earnest solicitation. Upon examining the right ear, it was found perfect. In the left ear the drum cavity was nearly effaced, with the drum membrane firmly adherent to the inner osseous wall or promontory of the cochlea. The Eustachian tube admitted air into this nearly effaced tympanic cavity, as perceived through the otoscope, yet the ticking of a watch could not be heard when pressed against the ear. The object to be attained in this case was to liberate the drum membrane and restore the drum cavity. This was in a measure effected by the following novel treatment: Having secured the Eustachian catheter in the pharyngeal orifice of the Eustachian tube, a small rubber tympanic catheter (Weber's) was introduced through the silver Eustachian tube, until its free end entered the cavity itself. Through this channel the drum cavity was filled with a solution of sulphate of copper of the strength of four grains to one drachm. This was injected for the purpose of exciting inflammatory action, its effects causing the old bonds of adhesion to soften. The injection was repeated each day. After a few days, air was driven with sufficient force through the tympanic catheter to stretch the adhesive bands and allow the depressed membrane to resume somewhat its normal position. The result was an immediate improvement in the hearing. From absolute deafness, in the short space of a week, the patient could hear the watch at six inches from the ear, and could understand conversations as well with this formerly deaf ear as he could with the perfect one. This result was unusually good.—*Baltimore Annual Surgery Reports*, 1873.

JOSH BILLINGS ON DOCTORS.

Doktors are not all quaks ; you hav got wrong noshuns about this. Doktors, lawyers and ministers hav a hard row to ho ; they hav to deal with the kredulity, knavery and fears ov the people, three ov the most difficult traits in human natur tew handle If i was a doctor and understood mi bizziness, i should dokter mi pashunts, and let the disease take care ov itself. More folks are kured this way than enny other. It ain't much trouble tew doktor sick folks, but tew doktor the well ones is bothersum.

Editorial.

Our Lying-in Hospital and Foundling Asylum.

We conceive it to be a duty of medical journals in every community to criticise its public charitable institutions with reference to their location and conduct, as through the interest and guardianship only which we exercise will errors be pointed out and corrected; and hence, we believe that, when the authorities presiding over these charities are in kindness admonished, the best results are attained.

With this conviction and sentiment we set about the task before us of directing the attention of the managers of the "San Francisco Lying-in Hospital and Foundling Asylum" to certain errors which it is unquestionably their duty to correct at once, or, as an act of humanity, without delay close their institution.

From an intimate knowledge of this charity, we assert that the location is in no manner, other than its seclusion, adapted to the purpose—in a narrow, dirty street, surrounded by every species of filth; in a portion of the city *low* and damp; on made ground, where malaria abounds, and affects one half its inmates; without the usual and necessary open surrounding grounds, and with apartments small to a degree that renders them unfit for occupancy, violating the law which requires not less than five hundred cubic feet of space for each inmate of every house (and which requirement is not in any well-regulated lying-in hospital considered enough for the class of patients treated)—we say these are defects which call loud for correction. But the children consigned to the nursery department cry louder for more air and attention. In a room not more than 10 ft. by 12 ft., in a portion of the house to which the sun never until late in the day has access; are crowded from thirteen to sixteen little waifs of from one week to eight months old. For the accommodation of these poor unfortunates, four cribs and one cradle are provided, and, consequently, not only is the space of the apartment deficient, but the poor helpless creatures are necessarily herded together, two, three and four in one crib, breathing each other's breath,

pure, or charged with the seeds of disease, as the case may be. In addition to these thirteen or sixteen pairs of lungs employed in consuming the oxygen of this infant pen, a huge fire is kept up day and night to further assist in exhausting the atmosphere of that life-giving principle which is at this particular period of human existence more necessary than at any other.

For the care of this number of children, one nurse is supplied; and, however earnest or zealous she may be to discharge her duty faithfully, it must be patent to every mind that it is utterly impossible that the children should receive such attention as their delicate condition and age demand.

One, visiting the foundling department of the institution is appalled with the spectacle that meets his eye, and is led to offer a silent prayer for the safety of its inmates; each of whom are a faithful representation of Oliver Twist, with eyes sunken, muscle wasted, and skin drawn, and a purility of voice, indicating inanition, of which the large majority die.

This institution has for the past five or six years been the recipient of State bounty, although trifling in proportion to the character and usefulness of such an asylum, properly conducted, yet, from causes not explained, it (the hospital) has never fulfilled the great ends for which it was established, and that the public have had a right to demand—nor can it be expected that it shall, so long as it occupies its present location, and continues under its present management.

We grant that the want of means or money will in a large measure explain its inefficiency, but we insist that for the same amount as is monthly paid for rent, much more desirable accommodations could be secured. Why the management continue to occupy these quarters, no other reason can be assigned in face of the fact that a more commodious building doubtless could be secured at some point a little remote from the center of the city, which, indeed, would be advantageous, because of more fresh air and sun light, unless it be that the present location is more convenient for the Manager, Physician and Secretary—a trinity, three in one—whose residence is adjacent, and who unquestionably would find it irksome to travel when called at night.

All this we appreciate, but are of the opinion that if this good old gentleman feels that the San Francisco Lying-in Hospital and Foundling Asylum are paramount with him to all else, which he would fain make the world believe, he should be willing, for the sake of humanity and the reputation of the institution and city, to remove at once to more spacious quarters, and thus place himself, and the hospital over which he presides, in a position to with better grace apply to the Legislature of the State, and the citizens of San Francisco, for further assistance.

As to the cleanliness of the Asylum, nothing is wanting; but to make such an establishment a success to its management, and fulfill the requirements of the supporters and citizens at large, everything should be done that will in any wise contribute to the comfort and longevity of the unforfunate creatures who are compelled to seek shelter under its roof.

What we have said has been done in a spirit of kindness towards the management, yet with an eye single to the correction of evils which are destined to eventuate in the closing of the institution, unless, without delay, a remedy be found. It is not sufficient to extend the establishment north, south, east or west, as we learn it is contemplated to do. Nothing short of an entire removal to some higher and more spacious location, together with a change in the conduct of the Foundling Asylum, so far as relates to the children, will meet the exigiencies of the case.

Now is the time, on the eve of the meeting of the next Legislature. Act at once, and we promise our support to your demands in any and every direction.

R. B. C.

Our Newly-Located Medical Society.

The Pacific Medical and Surgical Journal, in its last number, attempts a series of apologetic excuses on behalf of the "College of the Pacific," for the unprofessional and discourteous sharp practice by which the professors of the "Medical College of the University" are excluded from the social and professional advantages to which they are en-

titled as members of the "San Francisco Medical Society." With no desire to foster discord between the medical practioners of this city, we could not refrain from disapproving of the very singular action of that society in compromising the University into a recognition of its pigmy rival, whose unreasonable ambition for a collegiate recognition has already been the source of great misfortune to the reputation of medical graduates on this coast; and, if the advantage of numbers enables the advocates of this injustice to perpetuate the wrong, then the only alternative that self-respect leaves to the protesting minority is to forego the gratification of joining in these hitherto very agreeable reunions, and patiently wait until a healthier sentiment instigates a change, or the demise of the so-called "College of the Pacific" relieves the Medical Society from the burden so injudiciously assumed. We recognize the diplomacy of the *Pacific Journal* in endeavoring to shift upon our editorial shoulders the responsibility of an indignant protest, in which the faculty of the University are so thoroughly united, but we respectfully decline the issue in that form.

Transactions of the Medical Society of the State of California.

This volume of two hundred and fifty-two pages has been received, and contains the papers and transactions of the last meeting of the State Society. From it we glean that there was a larger attendance and more interest manifested than on any previous occasion, at least, for many years.

On looking over the several papers we find a number worthy of notice and comment; but as the "Transactions" will find itself in the hands of most practitioners on this coast in a few days or weeks at most, it is sufficient to merely name such articles as are of peculiar interest, among which we will mention "The Report on Surgery," by Dr. G. G. Tyrrell, of Sacramento; the "Address" of Prof. F. W. Hatch; "On the Reciprocal Relations existing between Physicians and the Public;" the remarkable case

reported by Prof. A. B. Stout, of Femoral Aneurism, in which case he performed the operation of ligation in 1849, the patient recovering perfectly; and in February last, twenty-three years after the operation, dying of other causes, the autopsy revealing the effort by which nature had made to compensate for the loss of the ligated vessel, etc.

The very interesting report by Prof. H. H. Toland, of two cases of resection of the elbow joint, accompanied with plates explanatory of the operations and results, together with an account of "skin grafting," with case and large colored plate.

The concluding article is the address of Prof. D. C. Gilman, President of the University of California, "On Medical Education in the State University."

The article is one which should be perused by every Californian, whether professional or layman, as it treats of the vital interests of our great educational system, and should stimulate all who are interested in the welfare, growth and prosperity of our State, to encourage the authorities in carrying out the plan or scheme of medical education as enumerated by the President in his address before the State Medical Society.

Miscellaneous.

The Troubles of Copartnership Practice.

A DREAM OF RIP VAN WINKLE, JR.

Last night I had a queer, queer dream;
  I dreamed the fight was o'er;
The suffrage bill had passed the house;
  Woman was slave no more.

My loving spouse was Doctor dubbed,
  And a diploma sported;
And like M. D.'s, with shingle new,
  All patronage she courted.

The caudle o'er, the good-night said,
  The day's toil brought me sleeping;
Gently towards the midnight hour,
  Light-footed Time was creeping.

And Mrs. Winkle by my side—
  Now taller by a span—
Beneath the weight of honor new,
  Was snoring like a man.

I heard a tinkle, loud and shrill,
  Ring through our outer hall;
That signal that humanity
  Is getting up a squall.

"Wake Mrs. Winkle," sharp I cried,
  "My M. D. Winkle, dear,
The storm roars loud—but louder yet,
  That cursed bell I hear."

"Why don't you answer it?" she said,
  Shivering 'neath blankets warm,
As louder round our little cot
  Howled fierce the wintry storm.

"Not I, my dear; 'tis now your turn—
  For I was out last night;
The bill has passed—to midnight nap,
  Man now has equal right."

"But then the babe?" O! nurse it well,
  And leave nurse bottle here;
I'll snuggle it while you are gone
  Upon your visit, dear.

Good night, my dear! My blessing take,
  The darling warm I'll keep;
And, 'neath this law of equal rights,
  While you must wake, I'll sleep.

But when she's drained the pearly founts
  Nature designed for her,
Please put upon her, ere you go,
  A change of diaper."

"Not I," she said, "that's now your task,
For that's your equal right;
And you may find, my husband dear,
That two will watch to-night!"

She shut the door, and out she went
Into the night and storm.
I cuddled up our darling babe
To keep her sleeping warm.

But soon the babe began to search
For founts that were not there;
And kicked and squalled in wicked style,
Despite my soothing care.

"Hush-a-by baby," soft I sang,
Sang in my gentlest tone;
But 'bove my bass her treble shrill
Rang out as if alone.

On pillow soft as Queen's Mab's throne
The squalling child I set;
I held her on my aching hands,
Till both my hands were wet.

I pressed her to my bony breast,
She only squalled the louder;
In vain I gave her pulsatill,
And then a Dover's powder.

Like vestal nun, in robes of white,
I paced that chamber floor;
Sterne's angel dropped a tear upon
The oaths that night I swore.

"Confound the child!" at last I cried,
"Confound these Daniels all.
I'll move amendment to that bill,
No babe at night shall squall.

When next these grannies wise essay
To dub my wife M. D.,
I'll pray Dame Nature that she make
A wet nurse out of me."

Slow came the morn, slower my spouse;
  The morning meal was poor;
The babe squalled on, and glad I saw
  My dear wife ope the door.

A rougish look was in her eye
  As she smiled on babe and me;
And when she hoped I well had slept,
  It looked like irony.

Tinkle, tinkle went the bell,
  Breaking this night-mare theme;
I woke, and gladly faced the storm,
  Thankful 'twas but a dream.

A SCRAP OF HISTORY.

The *Chemist and Druggist*, in a late editorial, acknowledges the indebtedness of science to Paracelsus in these words:

"This gentleman, who was born in 1493, seemed to carry with him into the sixteenth century a judgment and experience matured by an acquaintance with the practice and theories of the nineteenth. He treated the schools of physic then in existence with the scorn and ridicule which probably they well deserved, and he went about administering the then almost unknown medicines, antimony, opium and mercury, with such skill and judgment that his cures and his fame as a physician soon spread all over Europe, without the aid of newspapers, while these medicines, which he may be said to have introduced, have maintained almost exactly the reputation which he assigned to them even unto this day. Such an extraordinary instance of a man living before his time is hardly on record in any branch of learning."

DOMESTIC PEPSIN.

MESSRS. EDITORS: I see in the *Journal* of May 22 an article on pepsin, by Dr. Hoskins, of Lowell. I think his remarks will do good.

I am using what I call *domestic* pepsin, consisting of the inside of the gizzards of chickens, turkeys, ducks or geese, or the stomach of calves or little pigs. Dry them on a stove in a plate, and then bruise them, and give a third of a teaspoonful of the powder in syrup a few minutes before

eating. Some country people dry the gizzard itself and then grate it, and give that powder in the same way for dyspepsia.

I think this crude, inelegant, *domestic* pepsin far superior to pepsin made from *macerated* pig's stomachs, and it costs the poor patient next to nothing. I direct the patient to obtain and dry these skins and bruise them.

Portsmouth, N. H. N. L. FOLSOM, M. D.

IMPERIAL GRATITUDE.

Sir William Gull was waited upon on the 20th of May by Dr. Conneau and Dr. Baron Corvisart, who presented him, on the part of the Empress Eugenie, with a costly gold box bearing the Imperial cipher in diamonds. The box contained a pair of sleeve-links worn by the late Emperor.

THE PROCESS OF EMBALMING.

The Brunnetti process for the preservation of the dead has recently been published in *La France Medicale*, and it consists of several processes:

1. The circulatory system is cleared out by washing with cold water till it issues quite clear from the body. This may occupy two to five hours.
2. Alcohol is injected so as to abstract as much water as possible. This occupies about a quarter of an hour.
3. Ether is then injected to abstract the fatty matters. This occupies two to ten hours.
4. A strong solution of tannin is then injected. This occupies for imbibition two to ten hours.
5. The body is then dried in a current of warm air passed over heated chloride of calcium. This may occupy two to five hours.

The body is then perfectly preserved and resists decay. The Italians exhibit specimens which are as hard as stone and perfect in form.—*Philadelphia Reporter.*

THE USE OF CHORAL AS A TOPICAL APPLICATION FOR BED SORES.

Mr. Martineau has found that the sloughing of the integuments over bony parts can be treated, if not prevented, by the use of a solution of choral, 1 in 100 parts, of distilled water. He lays this on with a feather and lint, and in a few days the wound heals.—*The Dublin Medical Press and Circular.*

INJECTION OF SPIRITS OF WINE INTO ADIPOSE TUMORS.

Dr. Hasse, of Wordhausen, recommends the injection of alcohol into the substance of adipose or lipomatous tumors. He gives one case of a female who had a large fatty tumor reaching from the shoulder to the armpit. He injected alcohol into this at four different sittings, with fifteen days' interval, directing the syringe into different parts of the tumour. In a few days there was some slight inflammation. The tumor became at first firmer, but soon softened and fluctuated at several points. In three weeks an incision was made into the tumor, and the fatty matter could be pressed out in a liquid form. In another case of a man, æt. 40, a similar treatment was adopted with similar result.—*The Medical Press and Circular.*

LEPROSY OF THE BIBLE.

The leprosy of the Bible has always been a vexed question, and in the present day seems no nearer solution than before. That the "creatures" (for, really, persons without hands and feet, wanting the greater part of the nose, with voices reduced to little else than a croak, and whose existence is a burden to themselves and their friends, are little above creatures) who meet once at the gates of a Syrian town in the present day are the lepers of Scripture, is generally disallowed; for the disease is not contagious, commences quite differently, and produces a disease in no particular resembling that recorded in Leviticus. Elephantiasis Græcorum, also, as seen in the East, is hereditary, which is not recorded about the leprosy of old. Hebra, in a note to his article on scabies, in his comprehensive and learned work on skin diseases, has suggested that scabies was the leprosy of the Israelites, adducing in its favor—1, the contagious character of the disease; 2, the cure employed in Naaman's case—washing in the Jordan, a river whose water contains sulphur. In analysis of the Jordan water, sulphur is found, but certainly not in sufficient quantity to remove scabies by "washing seven times." The amount of sulphur in solution varies according to the place from which the water is taken: if near the source, it is in small quantities; and there is no doubt that it was near the commencement of the river that Naaman washed, for it is this part that lies on the road to Damascus. The most convincing circumstances, to my mind, that scabies was not the disease, is its rarity in Syria in the present day. In a year's experience of all

kinds of diseases in Syria, among which were many cases of skin diseases, no case of scabies presented itself to my notice.

Mr. Balmanno Squire has put forth in the *Journal* the idea entertained by many, that psoriasis presents many of the features recorded in Scripture regarding leprosy, supporting his theory by its frequency among English Jews and Asiatics. Of the greater frequency of psoriasis among Orientals, and more especially among Syrians, my experience in Syria is quite confirmatory; for among the Arabs I saw many cases, and more in proportion to the number of inhabitants than in England. But at the same time, of northern and western nations, removed far from Asiatic influence or blood, Norway affords as many cases of psoriasis, in proportion to its inhabitants, as Syria; and we find in this country Elephantiasis Græcorum cropping up. Psoriasis is also a non-infectious disease, which was a character that pre-eminently distinguished the ancient leprosy. My own comparison of the Scriptural disease, with diseases now known in Syria or any other country, has brought me to think that the leprosy of the Israelites has entirely disappeared; and that, when in existence, it depended on some fungus which attached itself to the hairs of man and animals, producing a crust similar to favus, only of a white color, for we find it producing its effects not only in men, but on the skins of animals worn as garments, and on the walls of the houses.—A. DUNBAR WALKER, M. D., in *British Med. Jour.*

NOVEL CASE OF SNEEZING.

In a letter from Dr. Y. A. Winn, of Libertyville, Mo., he says: "I will mention a very singular case—singular to me at least. A gentleman informs me that when prompted to sexual commerce, he is seized, immediately prior to the act, with a fit of violent sneezing—not unfrequently even the *thought* of coition produces this effect. Query: How would you prescribe in such a case? May the sneezing be excited by some pathological condition of the nervous system, in which the excitation of the Schneiderian membrane is due to some complicated reflex nervous action? The gentleman being married, we are at a loss for a satisfactory remedy. Fortunately, his wife has never *apparently* noticed this peculiarity. If she should, and he did much sneezing in the presence of other ladies, even *sneezing* might be a sufficient ground for divorce.

The *London Medical Record* is responsible for the following on sneezing:

"The custom of invoking a blessing upon persons who sneeze is, says Dr. Seguin, in a recent article on sneezing, a most interesting one. Several old medical authors state that the custom dates back from the time of a severe epidemic (in which sneezing was a bad sign) during the pontificate of Gregory the Great. Brand, however, and the author of an article in *Rees' Cyclopædia*, states that the phrase 'God bless you,' addressed to persons having sneezed, is much more ancient, being old in the days of Aristotle. The Greeks appear to have traced it back to the mythical days of Prometheus, who is reported to have blessed his man of clay when he sneezed. In Brand the rabbinical account is given, that the phrase originated in the alleged fact that it was only through Jacob's struggle with the angel that sneezing ceased to be an act fatal to man. In many countries sneezing has been the subject of congratulations and of hopeful augury. In Mesopotamia and some African towns, the populace is reported to have shouted when the monarchs sneezed. Sometimes, moreover, it is very important not to sneeze; and Dr. Seguin has discovered what has been discovered before, but is insufficiently known—that sneezing may be prevented by forcibly rubbing the skin below and on either side of the nose. And on this observation of himself, and of Marshall Hall, Diday, and the world generally before them, he bases an exceedingly interesting study of the physiology of sneezing in health and disease." —*Lancet and Observer*.

THE YOUNG DOCTOR.

The young doctor has a very small office and a very large sign, with a transparency at night big enough for an oyster shop. These young doctors are particularly strong, as I understand, on what they call "diagnosis"—an excellent branch of the healing art, full of satisfaction to the curious practitioner, who likes to give the right Latin name to one's complaint; not quite so satisfactory to the patient, as it is not so very much pleasanter to be bitten by a dog with a collar round his neck, telling you that he is called *Snap* or *Teaser*, than by a dog without a collar. Sometimes, in fact, one would a little rather not know the exact name of his complaint, as if he does he is pretty sure to look it out in a medical dictionary, and then, if he reads—*This terrible disease is attended with vast suffering, and is inevitably mortal*, or any such statement, it is apt to affect him unpleasantly.

I confess to a little shakiness when I knocked at Dr. Benjamin's office door. "Come in!" exclaimed Dr. B. F., in tones that sounded ominous and sepulchral. And I went in.

I don't believe the chambers of the Inquisition ever presented a more alarming array of implements for extracting a confession than our young doctor's office did of instruments, to make nature tell what was the matter with a poor body.

There were Ophthalmoscopes, and Rhinescopes, and Otoscopes, and Laryngoscopes, and Stethoscopes; and Thermometers, and Spirometers, and Dynamometers, and Sphygmometers, and Pleximeters; and Probes and Probangs, and all sorts of frightful inquisitive exploring contrivances; and scales to weigh you in, and tests and balances and pumps, electro-magnets and magneto-electric machines; in short, apparatus for doing everything, but turn you inside out.

Dr. Benjamin sat me down before his one window, and began looking at me with such a superhuman air of sagacity, that I felt like one of those open-breasted clocks which make no secret of their inside arrangements, and almost thought he could see through me, as one sees through a shrimp or jelly-fish.

First he looked at the place inculpated, which had a sort of greenish-brown color, with his naked eyes, with much corrugation of forehead and fearful concentration of attention, then through a pocket-glass which he carried. Then he drew back a space, for a perspective view. Then he made me put out my tongue, and laid a slip of blue paper on it, which turned red and scared me a little. Next he took my wrist; but instead of counting my pulse in the old-fashioned way, he fastened a machine to it that marked all the beats on a sheet of paper—for all the world like a scale of the heights of mountains, say from Mount Tom up to Chimbarazo, and then down again, and so on. In the meantime he asked me all sorts of questions about myself and my relatives, whether we had been subject to this and that malady, until I felt as if we must some of us have had more or less of them, and could not feel quite sure whether Elephantiasis and Beriberi and Progressive Locomotor Ataxy did not run in the family. — DR. O. W. HOLMES, in *Atlantic Monthly*.

DR. CHARLES T. JACKSON,

The eminent chemist of Boston, has been taken to the Insane Asylum at Somerville, Mass. Dr. Jackson was one

of the most important experts in the celebrated trial of Professor Webster for killing Dr. Parkman. It was he who suggested to Morton the use of sulphuric ether as an anæsthetic.

A TEST BANQUET.

A *most* singular banquet has just taken place in Paris. M. Decroire invited several of his friends and a small company of scientific men to dine upon the flesh of horses which had died from the glanders; of cows the victims of the rinderpest; and of an ass just killed for hydrophobia. It was a "test banquet"—one that proved the devotion of each man there to science, in that he was willing to risk his life to demonstrate, in the most practical manner, that the flesh of animal is not affected as human food by even the worst diseases.—*Lancet and Observer.*

DEATH FROM GONORRHŒA.

A case of death from this cause has been recorded by Dr. Villneuve, of Marseilles Hospital. The patient was attacked by intense gonorrhœa, chordee and inflammation. Leeches were applied, and a slough formed, which, on separating, exposed the corpus cavernosum; rigors shortly set in, and pain in the joints of the upper extremities. The patient got an abcess in the elbow, and finally died from bleeding at the eschar wound on the penis. The history of the case indicated acute gonorrhœa, with penile and prostatic phlebitis and pyæmia.

Having seen intense gonorrhœa ending in "penitis," or inflammation of the entire organ, followed by the death of a fine young man, the question suggests itself whether amputation is not necessary and justifiable where no pyæmic symptoms are decidedly evident.—*Dublin Medical Press and Circular.*

THE "BLACK DOCTOR."

Our readers will remember that some years ago a miserable character, by the name of Vries, calling himself the "Black Doctor," was reported as performing most miraculous cures in Paris, where he created a great sensation. He has just died in great destitution, without leaving money enough to pay his funeral expenses.

DEPILATORY MIXTURE.

A new depilatory mixture is recommended by Prof. Boettger, consisting of one part of crystalized sulphydrate of sodium, and three parts of prepared chalk. Mixed with water, and applied to the skin, it effects the easy removal of hair.—*Med. and Surg. Reporter.*

M. B. A. OF FRANCE.

The *Medical Benevolent Association of France* held its fourteenth annual meeting April 20th and 21st. Its finances are highly prosperous, the society having funded 335,046 francs. The proposition was made by the treasurer to begin granting annuities in 1874, that is, four years sooner than originally intended.

FOR CHAFING OF INFANTS.

Take powdered starch two parts, white oxide of zinc one part. Make a fine, well-mixed powder. Dust the abraded places with the powder, after proper cleansing.

FEMALE DOCTORS.

The *Pharmaceutical Journal* quotes the following couplet from the "Nugæ Canoræ Medicæ," where the poet-laureate of the Edinburgh New Town *Dispensary* predicts:

"An' when the leddies get degrees,
Depen' upon't there's nocht'll please
Till they hae got oor chairs an' fees,
An' there's an en' o' you an' me.
For a' that ken the woman craiter
Maun own it is her foremost faitur
To tak' to lecturin' by natur';
An' hoo she'll do't ye sune'll see."

INJECTIONS IN INTERMITTENT FEVER.

M. Déclat, at a meeting of the Academy of Medicine (*Gazette Medicale*, Dec. 28), stated that, in cases of intermittent fever, he makes, on the first day of treatment, four subcutaneous injections of one hundred drops of a one per cent. solution of carbolic acid; the next day three; the third day two. The first operation, says the author, always diminishes the fever, and sometimes cures it; the second is sometimes a work of precaution; and the third is so almost always.

CALOMEL FOR PILES.

Calomel applied once or twice a day to tumid and tender piles, rarely fails to cure them in a few days.

LIDIA RODELRENA,

A wealthy Russian lady, has just presented to the St. Petersburg Academy of Medicine $40,000 to endow a department for the medical instruction of women.

PREPARATION OF KOUMISS.

Dr. Townsend, of Cork, gives the following formula for the preparation of this drink, which is said to produce such favorable results in the treatment of phthisis. Take one quart of new milk, one noggin of thick milk, or fresh buttermilk, and three or four lumps of white sugar. Mix all together from jug to jug till the sugar is quite dissolved. Put it in a warm place to stand for ten hours, by which time it will be quite thick. Pour it again from jug to jug until it is quick smooth. Bottle it in soda-water bottles, and allow it to remain in a warm place for thirty-six hours (twenty-four in summer). Use the best velvet corks; tie them down; shake the bottle well for five or six minutes before it is opened. It will have whey at the bottom when it is fit for use. It should be made every day and taken in quantities. Its fermentation is the test of its excellence.—*Druggists' Circular.*

PREGNANCY AFTER OVARIOTOMY.

Dr. F. Marzolo adds another to the list of cases in which pregnancy has occurred after ovariotomy. The subject, a woman aged thirty-three, had the left ovary removed in July, 1871, and was discharged cured a month afterwards. At the time when Dr. Marzolo wrote, parturition had not yet taken place, but the movements of the fœtus, the sounds of its heart, the placental *souffle*, and all the other signs of pregnancy—apparently of the seventh month—were distinctly present.—*Medical and Surgical Reporter.*

BELLADONNA TO CHECK SWEATING.

Dr. Sydney Ringer finds that belladonna or atropia can prevent or check sweating, whether this be due to external warmth or to disease. When it is the result of disease, the

subcutaneous injection of $\frac{1}{200}$th of a grain of atrophia is generally sufficient to arrest it for one night. The dose does not dilate the pupils, but it produces dryness of the fauces. Stramonium has a similar effect. Belladonna also arrests the secretion of the mammary glands.

DIETETICAL SKEPTICISM.

I confess to being a heretic in matters of diet. Do what I will I cannot bring myself to accept the current belief that butcher's meat is food *par excellence*, and that all other food is little more than "padding." On the contrary, I feel convinced that views and practices in this respect have changed infinitely for the worse during the last few years, and that herein, perhaps, may be found one main reason why various nervous disorders are so numerous and often so difficult to deal with.

Few persons, with any practical experience, I think, will maintain that the diet of "training," which is relatively rich in lean meat and poor in the other constituents of diet, especially in the oleaginous, can be kept up for any length of time with absolute impunity. The fact, indeed, is simply this, that an extraordinary degree of muscular strength is got up, not by the diet simply, but by the whole plan of training, in six weeks or thereabouts, and that, afterwards, the man in training gets out of "condition" every day, perceptibly losing muscular energy and firmness and pluck, and becoming headachy, feverish, and out of sorts in every way.

Few persons, also, will nowadays be prepared to contend uncompromisingly for Bantingism, which is practically the diet of training carried still farther to extremes on the side of meat; and not a few, I take it, will have begun to suspect that there may even be something actually hurtful in the practice. For myself, I will simply say that I have quite come to a conclusion on the subject, and that I very much doubt whether there ever was a fallacy which, to use a common phrase, has more effectually "played into the hands" of medical men—of those especially who are sought after by persons suffering from disorders of the nervous system. —DR. RADCLIFFE, *in Croonian Lecture.*

THE TRUE SURGEON—AN ANECDOTE OF NELATON.

Speaking of a visit to one of the Paris hospitals, a writer says: "As we passed into the hall we heard groans,

evidently of a child in great pain. The door leading to the sick ward was ajar, and as we approached we heard the voice of a man talking earnestly with the little sufferer. There was something very affecting in the imploring tones of the child's voice and the tender and sympathizing replies of the physician, and it seemed to us no breach of etiquette to witness through the crack of the half open door the scene that was passing within. On a narrow pallet near the window lay a fine boy, nine or ten years old, dying of cancer, developing itself between the eyes and behind the nose. It had not shown itself externally, but had destroyed the sight, and was attended by excruciating suffering. By his side sat a stately white-haired man holding with one hand the two of the little patient, while with the other he caressingly smoothed his hair. The child told the story of his pain. '*Ah je souffre tant!*' to which the old man listened patiently, promising to devise some relief. Then he rose to go, but first bent over the boy, and with tears dropping from his eyes kissed his forehead as lovingly as a mother. The white-haired man was the world renowned Nélaton; Nélaton lately summoned to attend the fallen Emperor."

PROLONGING LIFE.

An eminent French chemist, Mr. Robing, in a memoir recently presented to the French Academy, announces his belief that the period of human existence may be greatly prolonged, and enters into an argument to show that his belief is based upon sound reasoning. His argument is, that the mineral matter which constitutes an ingredient in most of our food, after the combustion, is in our system to incrust and stiffen the different parts of the body, tend to render imperfect many of the vital processes. He compares human beings to furnaces which are always kindled, and says:

"Life exists only in combustion, but the combustion which occurs in our bodies, like that which takes place in our chimneys, leaves a detritus which is fatal to life. To remove this, he would administer lactic acid with ordinary food. This acid is known to possess the power of removing or destroying the incrustations which form on the arteries, cartilages and valves of the heart. As buttermilk abounds in this acid, and is, moreover, an agreeable kind of food, its habitual use, it is urged, will free the system from these causes, which inevitably cause death between the seventy-fifth and the hundredth year."

RUPTURE OF THE ŒSOPHAGUS.

This unusual accident occurred in Alabama, in the case of a healthy young man, aged twenty-two, and is reported by Dr. James S. Bailey, induced, it would appear, by a violent attack of vomiting. For twelve hours before death it was noticed that, during the attempts to vomit, nothing was brought up, and that full doses of castor oil failed to produce catharsis. Death ensued at the end of twenty-four hours. At the *post mortem*, the thoracic and abdominal organs were found to be healthy, but in the cavity of the chest were found the various fluids swallowed, including the castor oil, which led to the conclusion that the œsophagus had been ruptured. A more minute dissection revealed the seat of this rupture, which proved to be half or three quarters of an inch in length, and situated an inch above the cardiac orifice of the stomach.—*New York Medical Journal*, May, 1873.

HOW TO SWALLOW A PILL.

The *Chicago Medical Times* is responsible for the following: "Put the pills under the tongue and behind the teeth, and let the patient immediately take a large swallow of water, and he will neither feel the pill nor taste it. In fact, he cannot tell where it has gone, and I have seen them look about the floor to see if they had not dropped it."

Book Reviews.

CHEMISTRY: GENERAL, MEDICAL AND PHARMACEUTICAL. A Manual on the General Principles of the Science, etc. By JOHN ATTFIELD, Ph. D. F. C. S.; fifth edition; revised from the fourth (English) edition, by the author. Philadelphia, Henry C. Lea; San Francisco, A. Roman & Co.

Of all the works extant on this important branch of medical education, none has acquired a more extensive endorsement by the medical institutions and physicians of Great Britain and America, and perhaps there is no book better adapted to the use of students. The mere fact of it having

gone through five editions in as many years, is *prima facia* evidence of the favor with which it is considered.

One feature of the work, which renders it particularly attractive, is the introduction of "questions and exercises" upon all important subjects, which will not only facilitate the student in his labor, but serve to impress the more salient points indelibly upon his mind.

To use the language of the preface: "The Manual is intended as a systematic exponent of the general truths of Chemistry, but is written solely for the pupils, assistants and principals engaged in medicine and pharmacy. It will be found equally useful as a reading-book for gentlemen having no opportunity of attending lectures or performing experiments, and as a hand-book for college pupils; while its comprehensive index, containing six thousand references, will fit the book for after consultation in the course of business or professional practice."

BODY AND MIND: An Inquiry into their Connection and Medical Influence, specially in reference to Mental Disorders, to which are added PSYCHOLOGICAL ESSAYS, by HENRY MAUDSLEY, M. D., Fellow Royal College of Physicians, Professor of Medical Jurisprudence in University College, London. London, Macmillan & Co.; San Francisco, A. Roman & Co., 1873.

Dr. Maudsley is perhaps to-day the highest authority in Europe, on the physiology and diseases of the brain. Esquirol and Solly, who for many years occupied this enviable position, atlhough still looked upon as authority, have fallen behind, and continue in a very large degree to follow the same old beaten track which they have pursued so many years.

Maudsley has, in the present edition of his book, struck out into a new vein, and discusses psychology and conscience in a manner at least novel, and bears evidence of sincerity, if not in all details convincing. The subject of the "relations of mind to body" is one far from being satisfactorily settled, and all that is written intelligently on

this question, as is the book before us, should be perused with great care and attention. The sooner that these relations are understood the better, and we have great confidence that ere long, through the researches of such men in Europe as we have named, and Hammond and others from our own country, we shall have these questions of the influence of mind over the body, and the body over the mind, approximately determined, and thus be enabled to distinguish the functional from organic lesions, and approach more closely to a rational mode of treatment of insanity in its various forms.

We earnestly commend the book before us (the three first lectures or chapters of which were delivered before the Royal College of Physicians of London by the author, who was appointed Gulstonian Lecturer for the year); to the profession, with the assurance that the time devoted to its perusal will be both agreeably and profitably employed.

ON THE TREATMENT OF THE DISEASES OF THE SKIN. By DR. MCCALL ANDERSON, Prof. of Practice of Medicine in Anderson University, etc., Glasgow, Scotland. Philadelphia, Henry C. Lea; San Francisco, A. Roman & Co.

This little work of eighty-four pages, which has appeared by installments in the *Medical News and Library*, but now comes to us in book form, is a concise resumé of the treatment of the most troublesome class of cases that the practitioner is called upon to manage.

While it is neither a treatise nor a compendium in the full sense, it is a valuable *vade mecum* for the hands of a practitioner, and will be found an important addition to the library of every physician.

THE

WESTERN LANCET:

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MEDICAL AND SURGICAL SCIENCE.

FOR OCTOBER, 1873.

The Photographs, illustrative of this article, unavoidably delayed, will appear in the November Number.

AND MILITARY SURGERY IN THE UNIVERSITY OF CALIFORNIA.

G. W. B., *aet.* 15. The patient was born with a double hare lip complicated with a fissure into the nose on the left side. The alveolar process, instead of forming a perfect arch throughout, was separated just where the left border of the intermaxillary bone should join itself with the superior maxilla. This free, projecting bone contained the more or less twisted incisor teeth. Moreover, there was a complete fissure of the hard and soft palates throughout—that of the hard palate measuring seven-eighths of an inch in width—while the soft palate appeared to exist only in the form of the projecting halves of the azygos uvulæ. When the patient was an infant an

operation for the union of the right fissure of the lip was performed with success, and the photograph No. 1 shows but the trace of the line of union. It was decided primo to correct the deformity of the dental arch, and on the 18th of July, Drs. Hewston, Sharpe and Paugh assisting, the patient was placed under the influence of ether; the free edges of the lip were drawn aside and a horizontal incision was made in the mucous membrane just beneath the septum of the nose and was carried an inch in length into the myrtiform fossa. With the curved edge of Hey's saw the bone was completely divided in the line of incision and a small section having been sawn from its extremity as well as from the free edge of the maxilla, it was displaced backwards not without considerable force. It fitted perfectly in place, and by means of a fine drill a silver wire was passed through three holes on either side and the displaced bone was retained fast in its new position. Small bits of clean sponge wrung out in carbolic acid wash were then placed all along the line of suture for the purpose of taking up the moisture and keeping the wound as dry as possible. The patient slept well the following night, P. 84, T. 36.5. On the 19th the raw, sawed edge of the superior maxilla was covered with granulations; the patient was fed on milk and broths. On the 20th the patient left his room without permission and wandered about town, eating fruit and cakes at his pleasure. It did not seem to do any harm, however, for the next day it was impossible to decide where the suture united the two bones; the dental arch was perfect; the sutures were left in place until the 25th, when the lower one was removed; the other two were taken away three days after.

On the 28th the operation for remedying the cleft in the palate was decided upon. The patient was etherized, an operation which it occupied one hour to effect, so much did he resist its influence. The Smith gag was then introduced and the mouth forced open to the desired width. With Langenbeck's palate knife the edges of the mucous membrane were carefully freed and then by the help of a

curved periosteum elevator the tissue and periosteum were separated from the bone as far as the edges of the alveolar process; and thus the whole arch of the mouth being flattened and in a lower plane, the two pared edges came together and were united by eleven silk sutures which were previously soaked in the compound tincture of benzoin to prevent them from slipping in tying. The anterior and posterior pillars on either side together with the tensor palati were divided; there was no difficulty whatever with the hæmorrhage; the Smith gag worked admirably. The fissure of the lip was remedied by the Clemot-Malgaigne method and united almost by first intention P. 84, T. 38 in the evening. The next day the patient experienced considerable pain in swallowing; he was allowed warm lemonade which he took for the purpose of dissolving the mucus which collected on the sutures; beef tea was given every three hours. It was noticed that along the right side of the teeth the tissure had separated from the bone, leaving a small crack between them; this was due to the fact, not that the tension was too great, but that the mucous membrane had been dissected down so near to the teeth. On the 30th the granulations seemed to hide any opening; the central line of suture seems to hold throughout; a bandage under the chin prevented the patient from opening his mouth except enough to swallow. He was repeatedly cautioned not to take anything but soups and other liquids for food; but, heedless of orders and hungry, he tried to eat a slice of bread which was mostly crust, and the result was that he was discovered with a mouthful, crying because it would not go down his throat, it caused so much pain. At the same time a slight hæmorrhage from the nose and mouth made us suspect that some injury had been done to the palate; our fears were realized the next day, for the line of sutures was noticed to be whitish, although there was no bad odor from the mouth; the union had evidently taken place and been ruptured, and the bleeding was from the torn vessels; the sutures were taken out from the lip. On the 1st August

the whole line of sutures gave way, leaving the two flaps free in the mouth. It was very discouraging indeed to meet with such a result; but, nevertheless, it was decided to reunite the flaps on the 2d of August. This time the patient was put under the influence of chloroform, and with even more difficulty than with ether; for his sleep being less continuous was also less tranquil, as was agreed by all present. The curling up of the free edges of the flaps made it less easy to bring them together, and so acting on the accidental hint which had been given, I separated the tissue from the teeth on either side for about an inch, leaving only the connection anteriorly with the displaced part of the arch and posteriorily with the remaining muscular tissue of either side of the soft palate. Four sutures, two of silver and two of silk, united the flaps. A small strip of platinum, a quarter of an inch in width, was then introduced over the united flaps, and its edges curled over downward so as to hold the flaps still better in place. The stretching of the tissues of the lip caused by the gag rent apart the existing union of the lip, so that it had to be reunited after the operation on the palate. The next day, the patient was in excellent condition, P. 64, T. 37. On the 4th, two ligatures of the palate gave way while those of the hard palate under the platinum plate remained in place; the hard palate was evidently solid. No further work on the palate was attempted. On the 11th the silver sutures on the hard palate were withdrawn and it was then seen that there was a perfect union of the hard palate, with the exception of a little fistulous opening quite anteriorly; the condition of the side fissures along the alveolar process was very satisfactory. The abundant and healthy granulatives were visible from either side, and the width was rapidly decreasing; no saliva passed through them, and it all fell upon the back of the tongue, far back in the mouth. The superfluous peninsular-like tissue left after the operation on the lip was trimmed off, and the patient was much pleased with the improvement affected. On the 16th,

another attempt, this time without the aid of anæsthetics, was made, to remedy the fissure of the soft palate. An incision deeper than the first one was made in the anterior and posterior pillars, so as to completely divide them, and four silk sutures then united the sides together. It seemed impossible to have other than a good result; however, two of the stitches gave way the second day after, and the patient being obliged to return to the country, two more silk sutures were placed on the very morning of his departure. I have not since heard whether or not they were successful in producing union, but the fact that nearly one inch of the hard palate is united and firm, proves that there is a great amelioration in the condition of the patient, and gives us to hope that by some future operation the fissure in the soft palate may be remedied.

The first operations for the closure of fissures of the palate were performed by Graefe of Berlin, Roux of Paris, and Warren of Boston. Each surgeon, ignorant of the doings of the other, announced the operation as original. The late Dr. J. M. Warren, in a work on "Surgical Observations with Cases," gives an excellent account of the steps of the operation for the closure of the cleft in the hard palate, and his operation in 1843 was essentially the same as that performed at the present time. The division of the posterior pillar of the palate, where it spreads into the velum, so as to relax the soft palate, was a striking feature of his operation. Mr. Pollock, in an article in Holmes' Surgery, vol. 4, p. 436, says, "that to Dr. Warren the profession is chiefly indebted for having advocated the closure of the hard palate by operation." In his various operations on the palate, numbering about a hundred, the complete closure of the fissure was not the result of a single operation in the majority of cases. In the operation, as performed by Prof. Langenbeck, the periosteum is dissected up with the flaps. It is supposed that the bone-producing nature of the periosteum will, in the course of time produce a hard, bony palate. In 1861, Prof. Langenbeck treated five cases of subperiosteal uranoplasty

in which ossification took place. On this subject Sedillot says: "We believe to have proved by our experience, by pathological physiology and by facts, that the re-establishment of a really bony vault is not to be hoped for; but the results of the occlusion by a membraneous and resisting velum are good and praiseworthy, and it is not the first time that an error has been the source of true progress. The buccal periosteum, separated from the intact sides of the palatine vault and carried towards the median line, to establish the naso buccal septum, remains bare on the side of the nasal fossæ, necessarily suppurates and is changed into fibrous and cicatricial tissue without producing bone; indeed, no one has been able to show a single patient with a bony palate of new formation." In the above operation it was particularly noticed by Dr. Sharp and myself that a sharp needle penetrated the detached flaps of the palate some ten days after the first operation, with considerable difficulty. There is another point which relates to a case similar to this and which is expressed by Mr. Pollock in the following words: "When cases with broad fissures of the posterior half of the hard palate are operated on, it is generally necessary to make lateral incisions through the soft tissues parallel with the edges of the fissure and close to the alveolar edge. The soft tissues between the incisions and fissure must then be separated from the bone, but great care should be taken not to injure the anterior and posterior extremities of these flaps, or in any way damage their connection in front and behind; the flaps must then be fastened together with sutures; sometimes it will be found desirable to plug the incisions with a little soft cotton; this helps to push the flaps towards the median line and takes off some of the traction of the sutures, this traction being almost unavoidable in instances in which the gap is an unusually broad one." The method of the platinum clamp is, I believe, a new one. In the performance of the operation on the lip, the septum nasi, to the lip of which was attached its free edge, was dissected out through the lip so that it was lengthened and

allowed the lip of the nose to project and escape as it were from the grasp of the tissue below it.

A New Method for Healing Ulcers.

The author claims to have successfully treated upwards of sixty cases of chronic, extensive and otherwise intractable leg-ulcers, by the following simple procedure. It is at least worthy of a trial: The patient is first narcotized, and then around the ulcer of the leg or foot, a finger's breadth from its margin, an incision extending down to the fasciæ is made; numerous blood-vessels are divided, and a severe hemorrhage ensues, unless a fine pledget of lint be packed into the cut and the entire ulcer strongly compressed. The packing with lint is also necessary to prevent union of the cut edges by the following day. Upon the second day the bandage and lint are removed; from then until a cure is effected a simple water-dressing is applied.

The author states that an astonishing change can be seen, even in the first twenty-four hours—the ulcer, which yesterday threw off quarts of thin, offensive, ichorous pus, furnishes to-day not more than a tablespoonful of thick, non-offensive, healthy pus. The old ulcer becomes rapidly smaller, healing from the margin towards the center, and is healed in a short time; but the cut is changed into a broad, circular sore, which also speedily cicatrizes.

The great diminution of the secretion, and other favorable changes occurring in the ulcer, find an explanation from the fact that the circumcision has divided dozens of large, abnormally-widened blood-vessels. Time is thus given for the lessened nutritive material, which previously was carried off by the excessive secretion, to be transformed into cells and connective tissue; in other words, granulations are formed, which fill up and heal the deep ulcer.

Without claiming this as a radical method, the author assures us that the cure is much more rapid, and the cicatrix becomes more elastic and resisting than in the ordinary means applied, which usually require so much time that the

patients depart with half-cured ulcers, soon to find themselves in their previous deplorable condition.—*Dr. Nussbaum, Wien. Med. Presse, May 4th*, 1873.

Institutes and Practice of Medicine.

On Chloral in Therapeutics.

BY DR. A. GUBLER.

[Translated for the WESTERN LANCET, from *Jour. de Pharm. et de Chimie*, August, 1873, by JOHN CALVERT, Esq., San Francisco.]

[Continued from last Number.]

Thus the prediction of Liebreich, which was accepted by chemists, has not been verified, or at least the metamorphosis of chloral into chloroform only takes place in very small proportion, as nearly all the chloral introduced acts only as chloral.

The obstacle interposed by the albumen of the serum, to a great many chemical phenomena indicated by theory, and the fact that a strong alkali is necessary to transform chloral into chloroform, are two circumstances which would, even without experiment, throw a doubt on the results announced by Liebreich. But a profound discussion of the facts observed in the laboratory and the clinic, transforms that presumption into a scientific demonstration.

The most determined partisans of metamorphosis admit that they cannot find chloroform in the blood (except in very minute quantity) and that its odor is not given off when blood is mixed with chloral. Where, then, is the proof of a total or almost complete conversion, which the

theory supposes? The proof is all the more indispensable as the theory of Liebreich is in flagrant contradiction to well-observed clinical facts, which establish, in my opinion, fundamental differences between the pharmaco-dynamic effects of the two substances, which can neither be explained by fractional doses nor by nascent condition, but only by two essentially distinct physiological actions.

In fine, whilst chloroform is one of the most powerful of anesthetics and a somniferous agent of little power, chloral possesses a hypnotic value comparable to that of opium, and only produces insensibility at the moment when existence is menaced, principally acting as a poison of the heart.

This leads me to mention an experiment respecting the toxical action of chloral, made by Dr. E. Labbé and the author, at the Hôpital Beaujon, in 1869, which I related the following year in the therapeutical lectures at the Ecole de Médecine.

In trying to account for the process by which chloral exercises its poisonous action on the heart, we made a transverse section of the bulb. To our surprise, the frogs operated on, resisted the toxical effects of the chloral much longer than the others. It is evident, therefore, that the new agent exercises its paralyzing influence on the heart, if not exclusively, at least principally, through the medium of the spinal bulb.

It is not easy to give an explanation of this physiological phenomenon, but the fact appears incontestable, and is the more worthy of remark, as it enabled me to predict the principal counter-indications of chloral before any accident had been reported by practitioners.

Ever since 1870 I have given warning about the harm which would result from the administration of chloral to patients troubled with cardiac innervation, characterized by weakened contractions, palpitations and intermittences. Later experience has justified my apprehensions, and, notwithstanding that H. Waters, Ogle, Peyers and W. Strange appear to have derived some advantages from chloral in a

few cases of cardiac affections, yet we know now that lesions of the circulatory centre are those which furnish the greater part of the mortal accidents which follow the administration of the new hypnotic. Unfortunate cases have been observed by Waters himself, also by Liebreich, Davreux (of Liege), Andrew Dunlop, Habershorn, Meldola and Smallmann. A prudent reserve should be the rule, then, with regard to nevropaths, smokers, opium takers, gouty subjects and drunkards; also, respecting persons with lesions of the spinal marrow and adjacent parts, or with organic diseases of the heart, especially when they have arrived at the period of asystolia.

But accidents from the use of chloral have been observed in other complaints besides those in this morbid list, viz.: in cases of nevrosis, neuralgia, insomnia, lunacy, phthisis, rheumatism, general debility, nettle-rash, miscarriage, etc. It is to be remarked that accidents from *chloralism* are always serious; the symptoms by which its exaggerated action are shown are as varied in intensity as they are in form.

Chloralism should be distinguished as *acute* and *chronic*. The former may be mild or severe, and even mortal. In the mild form we have vomiting, especially if the patient is up, vertigo, stupid feeling and loss of strength, and, consecutively, various eruptions, erythema, scarlatiniform rash, inflammation of the mucous membranes, all the phenomena of paralysis of the great sympathetic, with purpura, urticaria, etc.

In the severe form we have palor, defective sight, cold sweats, weak and depressed pulse, stupor, coma, mydriasis, tonic tetaniform convulsions and death.

This fatal termination is imputed by all the observers (Jolington, F. Wehb, Waters,) to depression or paralysis of the heart, as indicated by the experiments to which we have referred above.

Chronic chloralism has been reported particularly by Dr. Smith, of Baltimore, who has noted four cases similar to ergotism, and consisting of hyperesthesia, general sick-

ness, epidermic desquamation of the fingers, superficial ulcerations round the nails, anasarca, albuminurea, weakness of the heart and embarrassed respiration. Two of the four cases terminated fatally.

Chronic chloralism may be prevented by avoiding the administration of the remedy for too long a time. As to the severe form of acute chloralism, it should be combatted by the following means: refocillation or application of heat by the ordinary methods, flagellation, titillation of the mucous membrane of the nose, in consequence of its retaining its sensibility longer than the other accessible parts, snuffing stimulating odors (acetic acid, ammonia), artificial respiration; finally, inhalations of oxygen by Limousin's apparatus. Other counter-indications of chloral are furnished by the great repugnance manifested by certain persons to it, its intolerance and the vomiting it produces, and especially by the inflamed or ulcerated condition of the stomach, which is increased by contact with the irritant body.

We will now consider the numerous therapeutical applications of chloral.

1. *Chloral as a local application.* Chloral has been applied as an anodyne, sometimes on the mucous membranes, in gastralgia, enteralgia and proctalgia, but it may do harm if the pain accompanies inflammation with or without loss of substance; sometimes on the skin, in neuralgia, pleurodynia and rheumatism. In these cases it is nearly always inefficient, with the exception perhaps of odontalgia from carious teeth, and chloroform should generally be preferred to it.

Chloral has also been recommended by several surgeons as a topical application to wounds. It is a stimulant, an irritant even, which may be useful in case of a torpid ulcer which we may wish to excite to action.

According to Fr. Acceleta, it has been applied successfully to primitive syphilitic ulcers, but acting in another way, viz.: by suppressing the virus. In fact, chloral is not only a coagulant of albuminous substances and a chemical agent, but it is also a true poison for the epitheliums

of the vibrissæ (Richardson), which permits us to assign it a place amongst substances which prevent fermentation and putrefaction and are antizymotic. It has also been recommended as an antiseptic by Messrs. Dujardin-Beaumetz and Hirne.

2. *Chloral as an anesthetic.* Liebreich, and some of the first observers who came after him, gave themselves up to some strange illusions in this matter, which have been for the most part dissipated. Some few, however, still attach too much importance to the anesthetic action of chloral.

The truth is that the result of certain experiments seemed to justify their confidence. M. Carville, for instance, observed that during sleep produced by chloral there was no excitement of the circulation; and Professor Oré, of Bordeaux, having injected chloral into the veins of animals and obtained insensibility of the body, proclaimed chloral the most powerful of anesthetics. I accept the facts, but of what consequence are they in their application to therapeutics? None; for when chloral produces profound anesthesia, it kills.

Pulmonary Tuberculosis.

BY A. W. GRIGGS, M. D.,

Professor of the Principles and Practice of Medicine in the Atlanta Medical College.

Opinions long entertained, and generally believed to be correct, by members of the medical profession, require to be thoroughly analyzed every now and then, the more especially when the doctrines which they inculcate are so important in their relations to the lives of our fellow-creatures. The subject now being considered is one which of late has attracted an unusual attention of pathologists in reference to many points heretofore considered to have been settled; but little progress, compared to the interest

of the subject, has been made, until lately, for nearly half a century. Without referring particularly to the various dogmas, in detail, as they have engaged the minds of theorists, I shall only refer to such matters as are deemed worthy of notice in their connection with the origin and development of this fell destroyer of human life. In 1829, I believe that pulmonary tuberculosis was for the first time pronounced to be a constitutional disease. Before that time the symptoms were supposed to depend upon the formation and existence of tubercles in the lungs. The greatest importance was attached to the changes occurring in these organs. We gradually became convinced that tuberculization arose only from a vice of the constitution, and was therefore but the "local expression" of said constitutional disorder. That there is a tuberculous diathesis, which, under exciting causes, induces the tuberculous cachexia, with the concomitant local manifestations, is pretty generally believed. Whether this diathesis, in which the latent and undeveloped elements of tuberculosis are supposed to be present, is capable of hereditary transmission, is answered affirmatively by the great majority. That such hereditary transmission must necessarily occur, we have many facts which go to prove to the contrary. Yet we have heard the doctrine so long, and we have so often seen the children of tuberculous parents affected in the like manner, that we have considered those who escape as exceptional cases, without reasoning out the cause or causes which conduced to their exemption, and we have satisfied our spirit of research with the reflection that the disease remained latent, or dormant, if you please, or that the individual, so to speak, derived his constitution from the healthy parent. We deny the propriety of admitting as true, a proposition so broad and comprehensive, involving, as this does, most sacred relations and the highest temporal interests of mankind, unless we do so upon testimony other than the common observation of facts and sequences relating in a general way to the matter under investigation, and at most only able to afford circumstantial evidence, however strong. If we could be satisfied with such ordinary court-room testimony, the grave responsibility would still rest upon us to determine the essential nature of the morbific taint, trace it to its prime origin, note the conditions of invasion, and learn the therapeutic means best suited for its removal.

It is well agreed that the *predisposition* may be acquired. When acquired, is it equally likely to become hereditary?

It appears that it should be, particularly if it be so, that tubercular corpuscles, germs or cells, circulate with the blood, contaminate the tissues, and lead to the development of heterologous formations by what is called deposition. Further, it is said that there are some remarkable cases where the diathesis is congenital, although not inherited. Prof. Austin Flint, in his exceedingly philosophic and highly esteemed work on the Practice of Medicine, gives an interesting example of the kind, furnished by a medical friend. Neither parent was tuberculous, nor were their progenitors. They were in good health, the husband being aged fifty-seven and the wife fifty-two. They lost four children, of tuberculosis, between 1853 and 1861, aged respectively, at the time of their deaths, 23, 25, 24 and 23 years. It would be interesting to know more about these cases; for instance, the respective temperaments of the parents and the social position of the family, together with their management (at home) of the children — the hygienic regulations (if any) enforced—the kind of food and sleeping apartments, etc., etc. I am acquainted with cases similar to the above, but will, however, introduce an instance of exemption in an individual who was born of tuberculous parents, who lost all their other children, several in number, and likewise two grandchildren, of this affection. The little orphan was the only relic of the immediate line and was quite an infant when his mother died. He was taken to the home of his lately bereft brother-in-law, who was an educated medical gentleman of the olden time. Suffice it to say that the boy was brought up under the best hygienic regimen; he was fed at a table laden with substantial and luxurious food; he rambled with the little negroes over the fields and forests, developed into almost perfect manhood, without apparent defect or blemish, married soon after he attained his majority, became the father of a healthy progeny, and was accidentally killed when in the enjoyment of good health, in the meridian of life. These examples exhibit some of the freaks of this disease, and may best be accounted for by an examination into the effects of observing or violating the laws of health, etc.

Prof. Flint teaches that tubercle is an *exudation*, independent of inflammation, and is non-organizable; that it is but the local expression of a *constitutional condition*, on the account of which the deposit occurs. Further, that the relation which tuberculization bears to the *cachexia*, rather than to the structures in which it takes place, is established

by the generally uniform characters presented by the deposit, or substance, in whatsoever organ it may be found. Authors of the present day, generally, are strenuous in the belief that tuberculization is only the declaration of a constitutional disease mostly hereditary. The old doctrine of the lamented Samuel Henry Dickson and others, that this is due to a "*taint*" which is transmitted, unimpaired in virulency, from generation to generation, is believed by many, and made plausibly to appear from numerous statistics. I cannot consent to the orthodoxy of such views; nevertheless. they are still held to be correct by many practitioners. We are certainly largely indebted to our predecessors for their honest and laborious researches, which have so greatly lightened our duties by presenting to us so much scientific and well-arranged material, which can be beneficially applied in the construction of other, and it may be equally philosophic, theories. We confess, however, that our opinions are rather those of one who is seeking the solution of the difficult problem, than of him who has completed the analysis and is settled down in his belief. Most authors consent that in the varied forms of tuberculosis there is a perverted and depraved action of the nutritive function, or that there is mal-assimilation, and that this is to be ascribed to the scrofulous *cachexia;* but as to the exact nature of *this*, and as to the conditions necessary in originating it, there is only speculation, giving rise to conflicting arguments and beliefs and various empirical plans of treatment. This will continue to be so until our knowledge shall become more definite—until we can understand more precisely the tissue changes which are constantly going on, molecule by molecule. When physiology shall attain the full dimensions of the great science it is destined to become, and be able to expound the typical force and its relation to nutrition, the pathologist may be able to see his way through the labyrinthian hall, discover the aberrations of nature. and submit his reckonings to the therapeutist, who will perform his part in restoring to supremacy the infracted or subverted law. In this disease, therapeutics has gone ahead of its usual guides—has reflected the light of experimental truth and dictated to physiology and pathology more carefully to consider the functions of relation which control the mutual dependency subsisting between the tissue elements and the blood. I am satisfied that there must be a defective vitality or want of typical force in the minute structures of a part, before tuberculization can take place. In some way the equilibrium between the organs of supply and those of removal

is lost, and the unrenewed elements begin retrograde action, changing into forms differing from the original structures. These forms are but the debris of the tissues in which they are found, together with the imperfect products of ill-pronounced or abortive inflammation, and increase merely by the disorganizing process under such circumstances peculiar and by the disintegration of the proximal tissue. Tubercle is, therefore, not deposited. But what shall we say about diathesis? How does the predisposition arise? Or, how is it engendered and how does it become hereditary? It will be acknowledged by all that these are important questions, requiring patient thought and close investigation for their solution. There must be a point of departure from health.

This may arise from any cause which is capable of exerting continuously for a length of time a morbid depression in, or defective direction of, the assimilative process. The neglect of the plain laws of hygiene; the too free use of highly stimulating and indigestible food, or confinement to that which is poor in quality, or insufficient in quantity, or improperly prepared; excess in the unwise and truly uncomfortable fashions of dress; the miserably murderous eight and ten-hour systems of the common schools and manufacturing institutions of the country; that vile and prevalent habit of self-abuse, whereby the nervous system is ruined, variously combined with each other, or kindred violations in the habits of the undeveloped individual, will restrain the great laws of our being and undermine the very basis of mortal existence.

> "Nature, like liberty, is but restrained
> By the same laws which first herself ordained."

I have enumerated some of the conditions necessary to the origin of the diathesis in a constitution that has otherwise been a model of perfection, as nearly as can be in our tenements. In addition, let me say that nothing is more injurious, or, associated with other irregularities, tends more certainly to engender this diathesis, than poorly ventilated sleeping-rooms or the crowding of too many in the same beds or apartments. But how does the diathesis become hereditary? Simply by the conferring of similar organic forms and features; or it may be more directly due to the defective maturation of the ovum of the female, or to a weakened vitality in the sperm-cell of the male—or to both.

It is evident from the views set forth in this paper, if

they are correct, that tuberculosis of the lungs may be prevented in a great many instances, and probably arrested in some, by timely interference on the part of the physician.—*Atlanta Medical and Surgical Journal, July*, 1873.

Ergot of Rye in Relation to Retention of Urine.

In number 23 of the *Centralblatt*, Dr. Wernich calls attention to a physiological circumstance which should be borne in mind in the administration of the ergot of rye. It has long been remarked in the autopsies of persons dying after poisoning by this substance that the bladder is so constantly found distended that this must be regarded, not as an accidental circumstance, but as due to a casual connection. The explanation, indeed, is not difficult, as the action of ergot on the sphincter of the bladder has often been resorted to in therapeutics—*e. g.*, in enuresis, incontinence of the aged, paraplegia, etc. Moreover, in a numerous series of experiment performed with ergot for other purposes, the author found in numerous instances that although the bladder was emptied before the application of ergotin, yet very soon after this had been accomplished the organ was found enormously full. It is evident, therefore, that some other factor must have come into operation, besides the spasmodic action of the sphincter excited by the ergot. However, Dr. Wernich does not attempt the explanation of the Phenomenon on this occasion, confining himself to the obstetrical point of view, and in this giving a useful practical hint. He refers to two cases in which ergot had been administered on account of cessation of pain, but in which effective pains seem to have been kept off by reason of a distended bladder; and he wishes accoucheurs to bear in mind not only that the condition of the bladder should be ascertained prior to any manipulation being undertaken, but also that when secale has been administered a long time without effect they should have recourse to the catheter. It is, he says, highly probable that a large portion of the instances of the failure of ergot is not due to the bad condition of the drug, or its erroneous employment, but

to the obstruction to delivery caused by the coexisting distension of the bladder.—*Medical Times and Gazette*, June 14, 1873.

Bromide of Potassium and the Diseases of Dentition.

BY C. G. POLK, M. D., OF PHILADELPHIA.

As bromide of potassium has been applied to nearly every disease to which flesh is heir, anæmia and gastritis perhaps not excepted, I supposed, until recently, that the value of this agent in the disorders of dentition was well understood, and that it was frequently used. Finding the application of it to that class of disorders quite a novelty to many, I will give my experience, hoping to awaken attention to it from those possessing larger fields of observation to verify or disprove my conclusions.

I have used bromide of potassium in about one hundred cases of infantile diseases, embracing those of diarrhœa, pulmonary congestion, and cerebral congestion, arising from dental irritation. I have seen the diarrhœa which had defied chalk, acetate of lead, calomel, catechu, opium, the sulphites and pepsin, yield in forty-eight hours to this bromide. I have seen persistent vomiting, which is often, in such cases, nought else but relax action from the brain, cease after a full dose of this agent. I have seen the hot head, with gritting of the teeth, presagers of convulsions, yield to a few doses. I have seen pulmonary congestion, dependent on the same cause, yield in a few days.

The most marked case I recollect was in a daughter of Mr. Pickett, of Frankfort Arsenal. I had diarrhœa and both cerebral and pulmonary congestion to contend with, and at the time I resorted to the bromide of potassium the case seemed hopeless; under its influences she made a rapid recovery.

The dose must be adapted to each case.—*Medical and Surgical Reporter*, *July*, 1873.

Clinical Illustrations of the Value of Phosphorus in Certain Forms of Disease of the Nervous System.

Under this heading, Dr. W. H. Broadbent, of London, relates cases of epileptiform vertigo, severe neuralgia with gastric complications, nervous break-down from overwork,

and atonic dyspepsia. He thinks the failure on the part of phosphorus to answer the expectations of those who thought, a few years since, they had in it a powerful remedy in this class of affections, is to be explained by the difficulty of administering it without destruction, or, at any rate, impairment of its activity by oxidation. He says, that instead of giving it as formerly, dissolved in almond or olive oil, and suspended in mucilage, in which form oxidation takes place slowly, but which forms a nauseating mixture, he has administered it dissolved in oil or lard and inclosed in a gelatine capsule; the dose is about 1-30th of a grain, and it may be taken two or three times a day, always after food. When dissolved in cod-liver oil, phosphorus appears to undergo oxidation more rapidly than in any other medium by which it has been administered, and in the form of pills its deterioration is but little less rapid. Dr. Broadbent thinks it as absurd to substitute phosphoric acid for phosphorus as it would be to expect sulphuric acid to give us the therapeutical effects of sulphur.—*The Practitioner.*

Acne Rosacea.

Dr. F. D. Weisse thinks that this disease is frequently dependent upon sexual difficulties, and is often cured by marriage. He agrees that digestive disturbances are also a potent cause. Young ladies thus affected, he has observed, as a rule, avoid fat and eat but little meat. The use of these should be encouraged, and fatty matter may be added to the diet or given as medicine, as half a pint of cream daily, glycerin, cod-liver oil, or even olive oil. As local applications, Dr. W. advises any greasy application, even simple suet, scented, to be applied at night after the hot douche, followed by squeezing the masses from the follicles. In the morning the fatty matter is still left on, the face not washed, but a powder of equal parts of subnitrate of bismuth and prepared chalk is dusted on, and removed by lightly brushing the face. Hebra employs a very weak ointment of the bichloride of mercury. The speaker had also used an ointment as follows: ℞. Pulv. camph., gr. v.; sulph. flor., ʒ ss–i.; ung. simpl., ℥ i. M. He considers acne rosacea thoroughly amendable to treatment. He had pressed arsenic to a toxic effect, and kept it up for six weeks, without any benefit in this disease. He had seen,

however, good effects from cod-liver oil.—*Southern Medical Record, July*, 1873.

Night Sweats of Phthisis.

For the relief of this exceedingly troublesome symptom in this disease, a comparatively new remedy is being used somewhat. It is the sulphate of atropia. Some of the patients are taking one-sixtieth of a grain in solution *ter in die*; some are taking one-hundredth of a grain at bed-time, and all are giving very good results. The success in this direction has already been sufficient to entitle it to a trial at least. A very excellent plan of managing these night sweats consists in sponging the patient in hot water, as hot as they can comfortably bear. If a patient is found sweating profusely in the night, take him out of bed, sponge him thoroughly with hot water, wipe him dry, replace his flannels, and put him back to bed. Sometimes a single sponging will arrest the sweating for two or three days.—*New York Medical Record.*

R. D. ELRIDGE, M. D., of Mt. Knightstown, Pennsylvania, reports the following case of Chronic Urticana to the *Cincinnati Medical News:*

Mrs. J. L., aged 52, married, mother of family; had always enjoyed excellent health, with the exception, that for *twenty-seven years* she had been frequently afflicted with attacks of nettle rash; and during that time had been prescribed for by many physicians, both regular and irregular, without deriving any benefit more than a temporary one. In April, 1869, she came under my care, and received the routine of treatment laid down in "the books," without benefit.

The disease did not appear to depend on any derangement of the digestive organs, nor upon the taking into the stomach of any particular kind of food. About the time I was on the point of dismissing the case, as incurable, I prescribed fl. ext. gelsemini and bromide potassium morning and evening, and ordered a wash of carbolic acid (liquor), 1 part to glycerine 20 parts, to be applied to each wheal upon the next attack of the eruption. It proved

beneficial, and my patient sent for "more of that last medicine." It was continued nearly a month, since which time there has been no return of the rash. On several occasions during this treatment the peculiar effects of the gelsemini upon the brain were observed. The lady quite recently assured me that she has not, for nearly four years, felt any symptoms of her former tormentor, that for 27 years had visited her regularly every few weeks, frequently compelling her to keep her bed for a day on account of the excessive itching and constitutional symptoms accompanying.

Gynecology and Diseases of Children.

Injection of Sub-sulphate of Iron in Post-partum Hemorrhage.

BY H. N. RUCKER, PLAINSBURG, MERCED COUNTY, CAL.

While perusing the August number of the LANCET, our attention was directed to the use of perchloride of iron in the arrest of post-partum hemorrhage—mention also having been made of a case in which it was used with very satisfactory results, but subsequently followed by "alarming symptoms."

We have in a number of instances injected a strong solusion of Monsel's salts into the Uterus with the invariable satisfactory result; *i. e.*, the instant arrest of hemorrhage. In one case we also made use of diluted tincture of perchloride of iron, but we have yet to meet with the least unpleasant symptoms resulting from the use of either.

As to the efficacy of either agent we have no doubt, and as to the merits of each, one possesses about the same advantages as that of the other; but, owing to its being, as we think, somewhat less irritating, and probably possessing

astringent properties in a higher degree, we have given the subsulphate of iron the preference.

The method of using this article has been to dissolve about two or three drachms in a pint of cold water, and inject with a common Davidson's syringe.

Having first introduced the hand into the womb, and carefully removed all the coagula, the tube is then passed up, leaving the hand still in the uterus for a two fold purpose—that of ascertaining whether the hemorrhage continues to any extent, and also to bring away all coagulated blood resulting from the astringent injection.

The hand should not be removed till after the fluid has been brought in contact with and constringed the mouths of the vessels, and until satisfied the hemorrhage has ceased. Without the removal of the hemorrhage, there would be no coagulated blood remaining in the womb to give rise to unpleasant symptoms.

Below we subjoin a few remarks relative to three cases wherein, but for the prompt relief afforded by this means, death seemed inevitable.

Mrs. A.—multipara—aged 37 years, a quite large and fleshy woman, had been attended upon by an old lady through a tedious and painful labor.

We were told, that immediately after the birth of the infant, hemorrhage had set in to an alarming extent—the midwife had failed in her attempts to deliver the placenta, and that the woman was in a most critical condition. After hearing the messenger's account, and having a distance of fifteen miles to travel, we hastened to the scene, fearing the worst consequences. But for the hemorrhage having almost entirely ceased, the patient would have been dead long before our arrival. We found her in a condition that admitted of but little deliberation.

The countenance presented an almost death-like appearance; she was repeatedly fainting away—the extremities were cold, and the pulse scarcely perceptible. Upon examination, we diagnosed hour-glass contraction.

After administering brandy freely, and feeling satisfied

that the loss of a very few ounces more of blood would prove fatal, we determined to fortify, if possible, against further hemorrhage, by an injection of a strong solution of subsulphate of iron.

After some difficulty I succeeded in introducing my hand, and found, as expected, a considerable portion of the placenta still adherent, which was hastily detached, followed by hemorrhage from the fresh surface.

The solution was immediately freely injected into the cavity of the womb, which promptly arrested the bleeding. The patient soon rallied from the great loss she sustained, and, but from having subsequently suffered from Phlegmasia Dolens, would have made a speedy recovery.

CASE 2. Mrs. B.—multipara—aged 30 years, was delivered of a fine healthy child, which was soon after followed by the expulsion of the placenta. Having expressed herself as feeling quite comfortable, and her condition apparently being everything that could be desired, we left her, promising to return in an hour. We were much surprised upon our return to find her pale and prostrated from loss of blood.

A solution of subsulphate of iron was hastily prepared; but so violent was the hemorrhage, that she was in a few moments reduced to what appeared to be a dying condition.

The hand was quickly introduced into the uterus, which was cleared of a quantity of clotted blood, and the solution injected.

The hemorrhage was instantly arrested, and notwithstanding the grave symptoms from the great loss of blood, she made a rapid recovery.

CASE 3. Mrs. J.—multipara—aged 32, a rather delicate woman. She had suffered considerably during the last month of her pregnancy, but in every respect, save the flooding, her accouchement, was quite a natural one. Violent hemorrhage supervened in about an hour after delivery, and, before we could be summoned, she was almost dead from loss of blood.

The same means were made use of with like satisfactory results, as in the other cases.

Judging from the good effect in these and other cases, we have no hesitency in recommending this to those who have not made use of such means, as a safe and reliable practice.

Determination of the Sex in Utero.

BY C. T. DEANE, M. D., PROFESSOR OF DISEASES OF WOMEN AND CHILDREN, UNIVERSITY OF CALIFORNIA.

It has been asserted in various periodicals during the past ten years, that the sex of the child may be determined before birth by auscultation of the fœtal heart. It is a theory that like so many others has gained a sort of tacit recognition among professional men, although I have nowhere been able to find any tabulated statistics to demonstrate its correctness.

I was prompted to experiment in this matter some time since, by reading an article in the WESTERN LANCET positively asserting that the sex could be so discovered, claiming as a rule as follows: (I do not give the words of the author, as I have not the article at hand, but simply the gist of it). "It is well known," the writer says, "that the pulse of the sexes differs, that of the female being more frequent than that of the male, consequently the heart of a female fœtus beats more rapidly than the heart of a male." The writer proceeds to lay down the rule that whenever the number of pulsations of the fœtal heart exceeds 135 per minute, we may assert that it is a girl, and when below that figure a boy.

With this rule in my mind I commenced my examinations, but, before giving the result, let me say, that it requires a deal of practice to count accurately the fœtal heart-beats; that it is necessary to have perfect quiet in the room; even the proximity of a clock or a watch is liable to

distract one from attaining a correct result. To facilitate counting, a third person should hold a watch, signalling when to begin and when to cease. There is generally but little difficulty in locating the fœtal heart after a certain amount of habitude and education of the ear; but this previous training is necessary, for after distinguishing perfectly the sound and its exact locality, on attempting to indicate the spot to others, they may be unable to hear anything.

The fœtal heart-sound is usually found in the median line about an inch below the umbilicus, but sometimes you find it very much to the right and in some rare instances to the left of the median line. It closely resembles the tick of a watch. The patient should be placed on her back, with no covering but the slightest to obstruct the hearing. The ear, (in private practice the stethescope is preferable,) should be applied over the region of the uterus, and the sound of the heart searched for. The person holding the watch is informed by a sign when it is found, and he, by the same means, signifies when to commence counting and when to stop. Under all circumstances a full minute should be counted.

Case....	Age....	Nativity	Exam'd	Heart...	S—Sex..	Date of Birth	Sex ...
1	24	Ireland.	August 11.	148	Girl	September 11.	Girl
2	27	"	October 1.	140	"	November 3.	"
3	25	"	October 1.	140	"	November 2.	"
4	27	United States.	November 27.	145	"	December 20.	"
5	31	"	November 28.	120	Boy	January 1.	Boy
6	22	Germany.	November 28.	115	"	December 2.	"
7	30	England.	November 29.	140	Girl	December 22.	"
8	28	United States.	November 29.	125	Boy	December 1.	Girl
9	18	Mexico.	December 17.	137	Girl	January 3.	Boy
10	30	Ireland.	December 17.	120	Boy	December 18.	"
11	30	Germany.	February 28.	132	"	March 11.	"
12	32	Ireland.	March 11.	136	Girl	March 28.	Girl
13	26	United States.	March 2.	138	"	March 28.	Boy
14	33	British America	May 2.	114	Boy	May 27.	"
15	23	United States.	May 6.	140	Girl	June 18.	"
16	21	"	May 7.	145	"	May 9.	"

From this table it will be seen that I failed six times out of sixteen to designate correctly the sex. In these six instances the heart-beats were perfectly distinct, and I was most sanguine of a correct decision. We must therefore conclude that the assertion "that the sex can be determined *in utero*," is a fallacy.

When we consider the numerous influences, moral, mental, and physical, that may disturb the circulation of the mother, and as an immediate consequence, diminish or accelerate the action of the child's heart *in utero*, it must be acknowledged that no theory, no matter how ingenious, can be built on so infirm a basis. A rule so uncertain, unreliable and replete with exceptions is worse than no rule at all, and deserves no status whatever in medical science.

Hydrochlorate of Ammonia in Amenorrhœa, Sterility, etc.

BY K. P. MOORE, KNOXVILLE, GEORGIA.

I come now to notice a class of diseases in the treatment of which I claim the use of this drug to be purely original with me, viz.: amenorrhœa and kindred troubles. I claim, also, an idea which, though it may not yet be fully established, and the *modus operandi* of its action not fully understood, yet it is one well worthy further investigation, viz.: that this drug possesses some peculiarly specific action in stimulating healthy ovulation and its concomitant menstruation. Why should it not have this specific action? We have remedies which stimulate the liver to healthy action, remedies which act upon the kidneys, remedies whose specific action is upon the heart, etc. Now, as mercury, which, while it acts upon the glandular system and secreting organs generally, also possesses at the same time, some peculiarly specific action upon the liver, why may not the ammonia—while it acts upon the glandular, mucous, serous and fibrous tissues (all of which enter largely into the composition of the menstruating organs)

generally—also possess some peculiarly specific action in stimulating these organs to a healthy performance of their functions, a failure of which is too often the cause of ill-health and heirless households? It may be claimed that the use of it in amenorrhœa is suggested by recent authors. So I admit, but at the date of the beginning of my experiments with it, I had never seen or heard of its being recommended; and *now*, as a cure for sterility, and as a stimulant to healthy ovulation, I have seen on record no experiments as satisfactory as those I have been prosecuting, a few of which I propose to bring forward.

It was by accident I was led to experiment with it in this direction. In 1868, I was treating a friend of mine for ovarian cysts; was prescribing hydrochloras ammoniæ as a stimulating alterative upon the diseased organ. The effect of bringing on and regulating her menses was so magical, she was induced, without my knowledge or consent, to give it to her daughter, aged fourteen, who had never become regular in her catamenial function. Subsequently she gave it to her cook, who was also irregular, and, in both cases it acted so kindly that she called my attention to it. It was something new to me, but thinking it worthy a trial, I afterward prescribed it in a quite a number of cases with very gratifying results.

In 1869, was consulted by an intelligent negro for a prescription for his wife, aged about twenty-eight, who was irregular. She had been married nine or ten years, and had never borne children; was thought by her owners to be sterile. I gave her twenty grains mur. ammonia. ter die, for twelve days preceding her expected period. Continued it for several months. Nothing could have acted better. In about twelve months from the beginning of prescription she gave birth to a fine son, much to the joy of the parents. She now has her second.

May 25th, 1873, prescribed for Betty (colored), aged fifty, mother of several children, the youngest now seventeen years old. After getting a full history of her case, I concluded that she was suffering with the usual symptoms accompanying the "critical period," as it is called, though later than the average age in life. By way of experiment, I gave her mur. ammonia.

For several months I lost sight of her. At last I was called to see her. Found her suffering with "morning sickness" and the usual signs of pregnancy, and ventured to express my suspicions. She could not believe it, "seeing she was well stricken in years," and her youngest now

seventeen years old. I made vaginal examination, and found uterus about size of three month's gestation, and being so thoroughly satisfied with my diagnosis, I used no remedy only such as to give tone to general health. Was with her at confinement, and delivered her of a delicate female child.

July 6th, 1870, prescribed for negress, aged about forty, mother of several children, youngest five or six years old. Irregular and deficient menses. Gave the ammonia as in preceding cases.

Called in less than twelve months from date of prescription to attend her in accouchment; she was greatly displeased that I "had started her to breeding."

These cases, taken from several that have come under my observation, certainly seem to invite attention in this direction to the virtues of muriate of ammonia. They served to get up for me an unenviable reputation; for I have been consulted and tantalized by every man in the whole country whose wife gave him no heir, for some of that "breeding medicine."

Now, while I do not, of course, believe this remedy to possess any virtue in causing conception, other than a stimulation to healthy ovulation and menstruation, yet in this way I am greatly inclined to believe it worthy of notice, to say the least of it. In one case in which I was giving it, as uterine and general alterative, about the "turn of life," she told me that it produced such a free flow of the catamenia as to cause alarm; she sat for hours where she could allow it to drop in a night-glass, and it kept a constant continual dripping for hours. To give it further trial, I advised it to be continued at the next period as before,—that is begin twelve days before, etc. The effect was the same, and I abandoned it.

In a few exceptional cases, I have been disappointed with it, and in *one* which comes to mind just now, it rather seemed to lessen the flow. Trial and expression from the members is earnestly desired.—*Atlanta Medical and Surgical Journal, July,* 1873.

A Report of Cases of Puerperal Fever.

BY G. O. WILLIAMS, M. D.

[Read before the Chenango Co. (N. Y.) Medical Society, June 10th, 1873.]

Since the last meeting of the Society, in the section in which I have been practicing, an unusual number of cases

of erysipelas occurred, generally of a severe type. Sometimes two or more cases appeared in a family consecutively, indicating its contagiousness. In all the cases the locality of attack was the face and head. In two instances the whole scalp was involved, accompanied with alarming symptoms. All the cases recovered, however, and no importance was attached to them, aside from their unusual number and rapid succession, and the fact that a large proportion of them were females between thirty and forty years of age.

These cases occurred during February and March. On the 22d of March I was called to see a case of puerperal fever for a neighboring physician. The patient was in the later stages of the disease, and died on the 23d. The attending physician, after describing the case to me, expressed with candor his fear that the disease had originated from infection communicated by himself from cases of erysipelas he was at the time treating. This probably would have been passed by as a possible cause, especially as it was a primipara and a forceps case, aged 31; but ten days later I attended another, confined with her first child, aged 27, in which case I used the forceps.

Chloroform was not administered, and no laceration was produced. At the end of thirty-six hours a chill ensued, followed by an increased pulse, partial suppression of milk, moderate thirst and fever. The lochia was suppressed, or rather, supplanted by an abundant and extremely fœtid discharge, almost colorless. The abdomen became tympanitic, though not tender; the pulse, 110, became intermittent on the 5th day, delirium followed, and death took place on the tenth day of attack. The case throughout was painless. I regarded it as a case of pure septicæmia. It was identical with the case to which I had been called by my friend, and suggested the question, *Had I, too, poisoned my patient?* This case was also attended by a third physician, who, during its course, was called to give his services to a lady confined with her third child. She had a somewhat tedious labor, though no extraneous assistance was required. She was attacked within forty-eight hours with acute peritonitis, and died in a few days. No more trouble followed our obstetric practice, though all shortly after met with this duty. It was remarked, however, that cases of miscarriage, occurring about the same time, had more or less metritis, and were tardy in recovery and tedious in treatment. In none of the three cases could I learn that any injury had been inflicted.

These cases occurring so consecutively, and the rumors of more in other localities, induced me to distribute throughout the county the blanks you received, to enable me, if possible, to glean all the cases within its limits and discover their cause. A large number were returned unfilled, and I regret that some cases of which I was cognizant were not reported at all. From four different localities, and from five physicians (whose names I am not at liberty to use), I have received in all sixteen cases. The summary of these I present to you. I have no theory to elaborate from them, and the suspicion of the relationship or identity of these cases and erysipelas may be dependent simply on their co-existence. Whatever may be established as their cause, I am confident it will be developed from the facts you may elicit from the gentlemen who treated them.

Of the sixteen cases, six are reported by one physician—two fatal, four recoveries. Erysipelas followed as an epidemic. Four are reported by another physician—all fatal. An epidemic of erysipelas preceded these cases. The remaining six are divided among four physicians, really practicing in the same section in two different towns. Erysipelas prevailed as an epidemic in this section. Of the sixteen cases eleven died, five recovered; five followed miscarriage, eleven labor at full term. Of the five cases following miscarriage, three were fatal; of the eleven following labor at term, nine died. Two had metritis, five peritonitis, nine had puerperal fever, seven were primiparæ, nine pluriparæ, three required manual aid, two the forceps, six were natural. The average duration of the disease was six days. Five cases occurred in January, three in February, three in March and four in April. The average age of the patients, 33 years. As a matter of curiosity it may be stated that the youngest was 19, the oldest 55.

The confinement of these cases to really three localities indicate an endemic character, and we may look for their causes within a circumscribed limit. These, gentlemen, are the facts I have secured, and I leave them to your consideration, after thanking those who so kindly furnished me the data.—*Medical and Surgical Reporter, July*, 1873.

Closure of the Vagina by an Extensible Hymen.

Dr. I. Galindo, of the city of Mexico, reports the following case: Mrs. N. N——, of nervous temperament and

strumous constitution, had been married eight months. She had always enjoyed good health, and menstruated regularly and abundantly. Some months after marriage she observed a relative scantiness of menstrual discharge; slight giddiness, loss of appetite, and a certain general bad feeling, but, attributing them to the condition of pregnancy, allowed some time to pass. The symptoms and menstrual flow continuing, she consulted a lady friend, who, after an examination, advised her to consult a physician. The physician to whom she applied felt, on introducing the finger, a membrane which, as he says, "without my reaching to the extremity or bottom of it, resisted a little, but yielded to pressure." Withdrawing his finger, the membrane adhered to it like a glove. Examination with a speculum disclosed appearances corresponding with what had been presented to the touch. A mucous membrane was seen identical with that of the vagina, elastic and entirely closed. When the next menstrual period recurred, she again visited the physician, who observed the blood passing like a sort of exudation from the whole mucous surface of the external parts, presenting great drops disseminated over the membrane. The inference was a hymen consisting of a membrane so exceedingly elastic as to permit the entrance of the penis; coition without resistance, without breaking of it, and without impeding the act. Having drawn the membrane, with pincers, outside the vagina, it was punctured with a bistoury, and at once retracted so as to form a hard roll, which offered some resistance to the free passage of the finger. Subsequently a speculum was used several times for the purpose of introducing iodine, and the hardness of the roll disappeared. Coition ceased to be painful, and even the use of a speculum did not annoy the patient.

Two or three months later the woman aborted; had an attack of granular metritis, and, recovering, again became pregnant. In due season she was delivered by a normal labor, excepting that owing to the smallness of the vulva the dilatation of it was tedious, and the perineum—as the doctor predicted—was ruptured.—*Observador Medico.*

Gelseminum in Gynaecology.

Dr. H. V. Ferrell, Carbondale, Illinois, writes to the *Clinic*, that two doses of gelseminum, of ten drops each,

entirely relieved the excessive irritability of the uterus in a case of endometritis, and the os, which was before the administration of gelseminum rigid and contracted, dilated. Another case—suppression of lochin, and retention of part of the placenta—the result of the stupidity of a midwife. Present condition of patient alarming; in which, on examination, the os was found firmly contracted, and hardly admitted the end of the index finger. The patient was treated with gelseminum and belladonna, and in twelve hours the os dilated so as to admit two fingers, and permit the extraction of the retained placenta, etc., when the patient recovered without further trouble.

Gelseminum (in five drops every hour, in water, till relief is obtained, and then at longer intervals,) has relieved after-pains in very severe cases. Dr. Shaw, of Guthrie, Iowa, claims to have had the best results from gelseminum in the treatment of uterine leucorrhœa, and Dr. Mobsworth, of Des Moines, places more reliance in it for the successful treatment of chronic dysmenorrhœa than in any other remedy; Both these gentlemen say its good effects in the affections are frequently as prompt and decided as is quinine in intermittents.—*Medical Archives.*

Opium in Uterine Therapeutics.

BY Q. C. SMITH, M. D., BELLMONT, MO.

We have found opium, judiciously and timely used, to be the most powerful and sure remedial agent to prevent any untimely action of the womb, of any article of the materia medica, and we have used many of them profusely, and often, I fear, with bad effect.

We use it to prevent abortion and miscarriage, combined with other remedies, but opium is *the Sampson*, and the rest are auxiliaries of more or less importance.

We use it, often, at full-term labor, in the following described way and cases:

We have a labor of more or less tediousness to wait upon; everything seems favorable for its progression, but, to use a common phrase, "it don't progress worth a cent;" time is precious; what shall we do? "Give ergot," say many high authorities; but we seldom follow their orders in such cases; we give the patient a full dose of morphine and quinine, combined, and wait and watch the result; and it is

almost invariably this: The patient, in a short time goes quietly into a gentle nap; and if the doctor who may have lost much rest and sleep, does the same, which he will have a strong inclination to do, he had better take the advice of an old soldier, and *sleep on his arms*, for the young invader will, with the screams of its mother, come suddenly upon your hands for immediate attention, and will not wait for preliminary arrangements to be made for its reception. Then what follows? Why the placenta, of course, although the books say we may or should wait for so long as an hour which instructions we triedto follow in our first cases, until nature and observation taught us better. Yes, sir; remove the placenta *at once*, and thereby save yourself much trouble, and, often, your patient much serious loss of blood and much suffering. The nurses with your supervision, will care for the child. Slip a thick dry cloth under and next to the skin of your patient, all the while watching the behavior of the womb, and instruct the patient how to watch her womb herself; and now let her take a quiet little nap of sleep. While she sleeps, make her out half a dozen powders of quinine and pulv. valerian, three to be taken a day. Give the attendants such instructions as are necessary, and watch your patient until she wakes; then put a wide bandage around her abdomen, *low down;* secure it well, and your patient, treated thus, will rarely, if ever, have child-bed fever.

Much more could be said of opium, but we forbear.—*Nashville Journal of Medicine and Surgery, July*, 1873.

Acute Uræmia.

Prof. Loomis, of New York, in a paper read before the Academy of Medicine, comes to the following conclusions in relation to the treatment of Acute Uræmia:

First.—That morphine can be administered hypodermically to some if not to all patients with acute uræmia, without endangering life.

Second.—That the almost uniform effect of morphine so administered is—first, to arrest muscular spasms by counteracting the effect of the uræmic poison on the nerve centers; second, to establish profuse diaphoresis; third, to facilitate the action of cathartics and diuretics, especially the diuretic action of digitalis.

Thus, morphine, administered hypodermically, becomes a powerful eliminating agent.

The rules which are to govern its administration are as yet not well defined. My own experience would teach me to give small doses at first—not to exceed ten minims. If convulsions threaten, and a small dose does not arrest the muscular spasms, it may be increased to twenty minims, and the hypodermics may be repeated as often as every two hours. It must be given in sufficient quantities to control convulsions; neither the contraction of the pupils nor the number of the respirations is a reliable guide in its administration.

It has not been my purpose, Mr. President, in this paper, to discard all, perhaps none, of those means which have been relied on for the relief of patients in acute uræmia, but to bring to the notice of the profession the fact that in a certain proportion of cases (if not in all) of acute uræmia, hypodermics of morphine will not only control muscular spasms, but aid in establishing the eliminating processes, and thus become another means of saving life in these too often fatal cases.

Hot Water as a Remedy for Prolapsus Uteri.

E. M. WRIGHT, M. D., of Chattenooga, Tennessee, in a paper read before the Tennessee Medical Society, advocates the use of hot water by the vagina, for the relief of prolapsus uteri. It should be used as hot as the patient can bear it and in sufficient large quantities, at least one gallon night and morning. The fountain syringe should be used, as the flow must be steady. The proper instrument can be easily improved by a tin retort that will hold a gallon, having a tube extending down from the bottom of the proper size to connect with the hose, or rubber tubing, which should be one-fourth of an inch in diameter and two yards long, supplied at its other extremity with an ordinary pepper-box nozzle. No valves are required. The jet can be shut off by compressing the tubing between the thumb and forefinger. A ring should be attached to the retort, by which it can be hung to the wall. Its height from the patient should be about six feet.

The patient should lie upon the back, extending the feet beyond the bed or lounge to some support about a foot

higher than the hips, which rests on the edge of the bed, permitting the water to run over a rubber cover into some vessel below.

Besides this treatment, the same attention is to be given to the general health of the patient, as such cases always require.—*Nashville Journal of Medicine and Surgery, July*, 1873.

Amputation of the Entire Uterus in a Case of Inversion.

Dr. Martino Barba, of Naples, reports a case of a woman twenty-five years old, who suffered a complete inversion of her uterus following the delivery of her second child. Owing to the exhaustion of the patient by almost constant hemorrhage, Dr. Barba removed the uterus by means of an *ecraseur* followed by a metallic ligature. The woman recovered and was discharged from the hospital on the twenty-second day after the operation.

This, according to the reporter, makes the sixty-fourth case of ablation of the inverted uterus which has been recorded, forty-four of this number having recovered. A point considered by him worthy of remark is the fact, that the operation by means of the ligature has met with greater success than any of the other modes, the uterus coming away generally by the twentieth or thirtieth day, during which time the free use of disinfectant washes is requisite.—*Le Tribune Medicale, March 30th.*

Chronic Eczema of the Extremities.

Dr. MacCallum, of the Montreal General Hospital, (*Canada Medical and Surgical Journal*), successfully treated an obstinate case of this affection, the patient, male, being forty-two years old, as follows: a solution of potassa caustica, gr. v., to water, ℥ ij., was used outwardly, being brushed lightly over the eruption once daily. The following mixture was ordered internally: ℞. Hydrarg. bichlor., gr. iv.; liq. arsenic, gtts. xv.; acid hydrochlor., dil., ʒ iss.; aquæ ad.; ℥ viij. M. ℥ ss *ter die.*—*Medical Record.*

Colorless Tincture of Iodine.

℞. Tincture of iodine, pure glycerin, aa. ℥ j.; sulphite of Soda, ʒ j. Rub the salt to a powder in a small mortar, and add the glycerin gradually; then pour in the tincture of iodine, and triturate gently until a solution is affected, and the mixture assumes an amber color. It is asserted that the properties of iodine are increased by the addition of the sulphite of soda, and that the glycerin enhances the value and convenience of the preparation for local application.—*Southern Medical Record, July*, 1873.

Case of Vesico-Vaginal in a Girl Nine Years of Age.

The fistula was caused by the passage of a calculus of the size of a pigeon's egg through the walls of the vagina. The calculus consisted of phosphate of ammonia and magnesia. The whole of the vesico-vaginal partition was destroyed. The existence of the calculus had never been suspected previously. Communicated by M. Cazin to the *Societe de Chirurgie.—London Lancet.*

Early Menstruation,

Dr. R. K. Clark records (*Boston Medical and Surgical Journal*, June 19th, 1873) a case of a child aged six years, who, soon after completing her fifth year, commenced to menstruate, and has continued to do so regularly every twenty-eight days. She is not precocious in any other respect, except her form, which is that of a girl of fifteen or sixteen. An aunt of this girl is said to have begun to menstruate regularly at the age of six years.

Case of Eclampsia Cured by Subcutaneous Injection of Atropia and Morphia.

Puerperal eclampsia; no albumen in the urine; fits violent and rapid; injection with a solution of atropia and acetate of morphia; seven hours sleep; no return of violent fits; only a few convulsive movements on the following

day, with feeling of dryness in throat. Recorded by Dr. Divet in *Gazette de Joulin*, No. 2.—*London Lancet.*

Success in Ovariotomy.

Dr. Lewis Rogers (*American Practitioner*, April, 1873), in a paper on "Facts and Reminiscences of the Medical History of Kentucky," calls attention to the fact that Dr. Taylor Bradford, of Augusta, Kentucky, has already attained in his cases of ovariotomy the ninety per cent. success which Spencer Wells thinks *may be* ultimately attained.

Ophthalmology and Otology.

Actual Cautery in the Treatment of an Ulcer of the Cornea. Blepharitis Marginalis of thirteen years' Standing complicated with Pustule and Ulcer of the Cornea.

BY DR. N. J. MARTINACHE, SAN FRANCISCO.

On the 14th of August last, Mrs. A. C. came to consult me. She stated at once that she had been under care of an oculist for about two months, and, as there was no improvement by the course of treatment heretofore pursued, he advised her to have her eye enucleated, in order to save the other. These are the expressions used by the patient herself. She had made up her mind to have the operation performed, but, before having it done, she wanted to know my opinion about her case.

EXAMINATION.—The upper lid is swollen, thickened in its whole extent, and falls down so as to cover the upper

two-thirds of the cornea. All along the edges of the lids there is a peculiar round swelling, about the size of a quill, of a hard consistency, limited to the marginal region, and more pronounced on the upper lid. The inferior lid is everted, which is due to the swelling, and on the median part of its edge there is a deep ulceration, which gives to the lid the appearance of having been divided by a cutting instrument. The lashes have kept a good direction, but have become so loose that some of them can be pulled out without producing the slightest feeling. On turning the eye lids, there is a considerable redness and thickening of the conjunctiva with a muco-purulent secretion.

The cornea is the seat of the most important alterations. On the upper part of that membrane there is a large round pustule five millimeters in diameter, of a whitish-gray appearance, making a saillie of at least a millimeter and a-half in the center. The upper circumference is confounded with the edge of the cornea, the inferior one coincides, or nearly so, with its center. On the inferior half of the cornea there is an immense ulcer eight millimeters (about three lines) in its vertical direction, and five in the horizontal one. This ulcer not only occupies the cornea, but is spread over the conjunctiva or the sclerotical region for more than one line; it is oblong, and of a depth of two-thirds of a millimeter in the center, gradually diminishing towards the margins, which are very sharp. The ulcer is of a grayish-yellow color in its corneal part, and assumes a reddish-yellow color on the scleroticai portion. One would but little exaggerate by saying, that the whole surface of the cornea is opaque, because it is only on the internal and inferior quadrant of that membrane that a small, hardly transparent segment can be observed.

I say hardly transparent, because it is with great difficulty that one can see the mobility of the pupil.

The perikeratic injection is considerable, but only in the superficial layer, that is to say large-meshed and freely movable vessels. Amongst them there is one remarkable by its size and direction; it runs in a perfectly straight line

horizontally from the edge of the cornea to the external canthus of the eye, and has no less than one millimeter in diameter.

The intra-ocular tension is a little diminished, but there is no important change to notice in that respect.

The pain is very severe and continual. For three weeks the patient could not leave her bed and could not sleep for several nights in succession; and it is on this account that she is ready to make the sacrifice of the eye rather than continue to endure such sufferings. The sight is simply quantitative; dark is distinguished from light, but the patient can not see the fingers nor even the hand.

The general health is poor—scrofulous constitution, and, in spite of all, the patient is now nursing her babe.

The disease commenced in 1860, when the patient was residing in New York; she successively visited Philadelphia, Baltimore, Chicago, and in these different cities she consulted the oculists of the best reputation. She has been more or less relieved, but never cured, and all oculists consulted told her that a complete cure was utterly impossible.

With this information I made a diagnosis, as given above, and I immediately expressed my opinion in the following manner: It is not necessary to enucleate the eye; it can be saved, and the sight restored to a certain extent. The astonishment of the lady was such that she could hardly believe it, and it was as a trial only that she first accepted the treatment. On the 14th of August a generous diet and tonics were ordered, poultices on the eye, and gradual epilation of the lashes.

August 17th.—Striking improvement—pain almost gone—the pustula greatly reduced in size, and less perikeratic injection—cornea a little clearer.

August 20th.—"I commence to see," said the lady, on entering my office; "the pain is all gone, and I have not felt so well for thirteen years." The improvement continues—the ulcer of the inferior lid healing rapidly.

August 25th.—The pustula has entirely disappeared;

she can see the hand. The ulcer of the inferior lid is healed, leaving a slight depression.

August 29th.—All the upper and internal part of the cornea is clearer, and well covered by the epithelium; the ulcer of the cornea above mentioned remains as large as before—bad color—no tendency to heal.

Fully aware of the inefficiency of the usual treatment in the ulcers of the cornea, I, to-day, commenced to touch the sclerotical part of the ulcer with a white hot cautery.

September 1st.—Great amelioration—cornea clearer, and sight better—ulcer healing, very good color—actual cautery on three places on the sclerotical part near the edge of the cornea.

September 3d.—The improvement goes on rapidly—cautery applied in one place on the edge of the cornea.

September 4th.—Very good effect—cautery in two places on the edge of the cornea, and on the middle of the corneal part of the ulcer.

September 5th.—18 hours after the last application the ulcer is on a level with the corneal surface; but the upper margin remains sharp.

September 6th.—The improvement continues; the upper margin less sharp, and almost level. The large external vessel above-mentioned is now reduced more than half; in a word, the change is marvellous.

September 8th.—The ulcer is entirely cured, and all the epithelium perfectly reformed. The most surprising thing is, that there is no opacity on the location of the ulcer—the cornea having a very slight whitish color which will, in all probability, be permanent. The perikeratic injection has almost disappeared; but the large vessel is about in the same condition as noticed on the 6th.

September 13th.—I made a section of the large vessel at about 8 millimeters from the cornea.

September 18th.—Inside of the section the vessel has entirely disappeared; outside, it has greatly diminished. At the point of section there is a little cicatricial depression.

October 3d.—To-day, on examining the patient, the depression has entirely disappeared.

The sight is gaining daily, and the acuteness of vision is now one-fifth. The application of the actual cautery to ulcers of the cornea is, so far as I am aware, quite new, and it is with a feeling of satisfaction that I announce this new mode of treatment to the medical world.

All physicians are aware that ulcers of the cornea are most frequently the despair of their patients, and the cause of much *ennui* to themselves, because of the slowness of their cure.

In the observation I have given above, the rapidity of the cure will astonish every one who reads its appreciatingly, as I can say that I still marvel at it myself. A deep and extensive ulcer of the cornea (forty millimeters, or six lines square,) cured in less than ten days is a new fact, even for the most experienced, and is, I think, new to science.

"But the patient must have suffered terribly!" I think I hear some one say, to which I answer that the patient did not suffer at all. In a future paper I shall treat the question in all its details. I intend to publish several observations of different diseases of the eyes, treated with the actual cautery. I shall show the *immediate effects* of this powerful agent, of which the name is calculated to frighten the boldest when the cornea is to be the seat of its application.

But I only ask physicians to be reassured. Experience has shown me that the actual cautery on the eye, as on other parts of the body, is the *least painful* and the mildest of all caustics.

Editorial.

Our Influence with the Public.

In the August number of the *Medical Record*, of New York, appears under the above caption a most sensible article, devoted to an explanation of the causes which have

created a barrier between the profession of medicine and the people, the existence of which must be noticeable to all observers. For many years (and to some extent even now) the members of our profession have considered it undignified to step aside from the old appointed track of our forefathers, when a doctor's step was measured and it was necessary that he should dress in plain black (very much after the style of an undertaker), when he should wear a cane of proper proportion and ride only in an established style of gig, when it was considered undignified to smile in the sick room, or leave your patient without either practicing venesection or kneeling at the bedside to pray with the patient, or leave some temperance admonition.

Indeed, through these practices and assumed manner of the physicians, followed and handed down from one generation to another for so many years, have the community or people at large been educated to believe that it was proper and indispensable to the efficiency of the "medical man," and that any deviation proved the author a miscreant and stamped him as being undeserving of confidence?

Any prominence attained to in politics or matters of general interest, through public lectures, addresses or written articles for the professional journals or daily prints, has been frowned upon and construed as intended for the purpose of advertising, and thus the medical man has been debarred from taking any interest or part in those matters which not only are of importance to himself, but to the community at large, who can only be reached through these media.

Is this right? We answer, No! and submit that first the medical profession owe it to themselves; it is their right that they should take rank in all matters of general interest, including politics, equal to the clergyman or lawyer. Their education and intelligence should qualify them, and the mere fact that they are *doctors* should not debar them. And second, that the people owe it to themselves that the medical profession should be brought into more intimate relation with them that they may have the

benefit of their advice in matters pertaining to public health, viz.: ventilation, sewerage, epidemics, endemics, etc.

It is gratifying to see that there has been an improvement in this direction within the past few years, and yet there is much to be done. Although our office of Coroner is now filled by a medical gentleman in lieu of an undertaker; that we have a "Board of Health," composed of representatives of the profession, instead of these matters being entrusted to laymen; that we have one representative in each branch of our local legislature, and several in the State Legislature, who doubtless will do all in their power to secure proper laws for the moral and sanitary protection of their constituents, and thus contribute their quota to the many reforms necessary; yet, as we have said, there is more to be accomplished, and this can only be done by constant contact with the people; the discussion of subjects with reference to the education of the masses, either from the rostrum of the lecture-room or the daily intercourse of the profession with themselves and with the community in which they may live; the writing of sensible articles for the press, couched in plain yet dignified language and having the aim in view of benefiting, in some manner, either in health or otherwise, the people to whom it is addressed. We are perfectly aware that these practices are open to abuse, yet what is there that is not liable to abuse?

We hold that it is only through these means that the profession of medicine will ever exert that influence over the people that the condition of its votaries entitles it to and that the people so much need.

A Reprehensible Practice.

The habit or practice of some of the medical schools in the East, of advertising their classes as being the largest in the United States, or the State in which they are located,

is becoming common and is undignified, and in our own judgment reprehensible.

It seems to us that the disposition manifested is to place these institutions on the level of a shop, as also do those who are cutting under in the matter of tuition, and at the same time they must necessarily fail of their object, inasmuch as it must be patent to every one upon reflection that the larger the class the less time can be devoted by the members of the Faculty to the individual student. Under these circumstances it is impossible to answer or explain the many questions that are liable to be propounded by the members of the class, and in the matter of clinics, either at the college or in the hospital, when the number is large, it is invariably impossible for the student to derive that advantage from this species of teaching that he has the right to expect and that is so indispensable to him.

We are therefore of the opinion that it will inure to the benefit of young gentlemen engaging in the study of medicine to select a school, the class of which is not large, instead of being attracted by these flaunting advertisements, which, though they may be true, yet are undignified, and are calculated to mislead that class of young men who are without experience and should not in this manner be taken advantage of.

Our Coroner.

The recent election for Coroner of the City and County of San Francisco resulted in the selection of Dr. Rice, a gentleman of Irish birth, occupying a highly respectable position in the profession and community, and prominent amongst his countrymen as a physician, and connected in a professional capacity with several of the charitable institutions or societies of the city.

Dr. Rice is comparatively a stranger in our midst, which has been assigned as a reason that he should never have received a nomination for this important position; and whilst it is undoubtedly the case that there are many physicians in the city who, from a long residence, intimate and extensive acquaintance and the many qualifications indispensable to this officer, were eminently qualified, with the right arising from these facts, to expect the nomination, yet it has been for a number of years the custom of the Tax-Payers and Democratic party to pick up a comparative stranger for this office. Why? No one can answer, unless it be, as has been asserted, that a man without any political record will always prove to be a more available candidate and can more easily be elected. This line of reasoning is specious and is unjust to the older representatives of the profession, as well as to the community, who expect and ought to have in the several offices of the city men who have lived in the community at least long enough to have established acharacter for ability and integrity—indispensables to the efficient discharge of the duty of every officer.

We do not wish to imply that Dr. Rice is not equal to these requirements, but we do say that those who pretend to represent the people and their interest in our political conventions should not ignore their obligations and should select men who are well known in these respects for the several offices to be filled.

Dr. Rice happens to be all we could desire; yet the principle which we are enunciating, we submit, is sound and should at all times be observed.

Reply of Dr. Hardy.

A letter from Dr. Hardy in this month's number of the *Pacific Medical and Surgical Journal*, in reply to an editorial in the LANCET of last month, over the signature of R. B.

C., has just attracted our attention. As the LANCET is about going to press it will be impossible to return our fire until the November number makes its appearance. In the meantime we wish to assure Dr. Hardy and all interested that whilst we spoke in kindness in the first article and it has failed to be appreciated by him, if necessary we shall prove all the important allegations in our article.

The junior editor of this journal had nothing to do with the article in question and if Dr. Hardy desires to throw down the gauntlet the senior editor of the LANCET will pick it up—and then! and then! and then!—

Obituary.

AUGUSTE NELATON, the eminent French Surgeon, died in Paris on the 20th day of September, in the 66th year of his age. Prof. Nelaton was a pupil of the celebrated Surgeon Dupuytren and received his degree of Medical Doctor at Paris in 1836. Soon afterwards he became Surgeon to the Hospitals in the French capital and a member of the Faculty of Medicine. He was chosen Professor of Clinical Surgery in the University in 1851, and in 1856 was admitted to the Academy of Medicine in the section of Surgical Pathology.

He was a close observer and student and a careful and successful operator. He was voluminous as a writer and publisher on subjects connected with his profession. Few surgeons have gained such a world-wide reputation as his. He was sent by the French government as a surgeon to see Garibaldi, and his connection with this case gave him considerable reputation. He discovered the ball in his ankle by means of a porcelain probe which since has been known as the Nelaton probe.

Miscellaneous.

What is Cincho-Quinine?

This question is often asked by physicians who have not been made acquainted with the nature of this important agent, and therefore we republish the following article, which appeared in the *Journal* in June, 1869, and which presents in a clear and explicit manner its nature and uses:

The chemical manipulation of the Cinchona or Peruvian barks reveals the presence in them of quite a number of most remarkable, complex bodies. No vegetable production, except the poppy, affords such a marvelous combination of valuable medicinal principles as the *loxa* and *calisaya* barks, and no substances have been studied with greater care or more intense interest by chemists. Nothing short of the subtle chemical forces controlled by the Infinite One could construct from the elements of the earth and air a bitter principle like quinia, or those other agents associated in bark, so closely allied to it physically and chemically. A handful of the finely comminuted fibres of the yellow bark, which resembles physically a dozen other varieties, is made to yield by the chemist, when treated with aqueous and alcoholic liquids and acids, a dark, bitter solution, unattractive in taste and appearance. If the process is skillfully conducted, or exhaustive in its results, there remains, besides the solution, a portion of woody fibre—inert, and almost tasteless. It holds considerable coloring and some waxy matter, together with a little tannin; but the active chemical or medicinal principles have been removed, and are held in the dark liquid. The exhausted bark is not entirely worthless, for it may be dried and used as fuel. But what of the dark liquid? From this the chemist obtains, besides other substances, a portion of beautiful white silky crystals; not wholly of one distinct kind, but of several, all of which possess about equal chemical and therapeutical importance. No wonder it seems to the uninitiated in chemical manipulation a difficult work to perform. It is, however, quite easy to be thoroughly instructed. The first principle isolated may be quinia. This is not held in the bark in its naked alkaloidal condition, but locked up, in the form of a salt, with another principle called *kinic acid*. In the bark it is *kinate of quinine*. We isolate the quinia, tear it from its embrace with kinic acid, throw that away, force it into a

kind of matrimonial alliance with sulphuric acid, and in this condition of *sulphate of quinia* use it as a medicine. This kinic acid marries into several other families resident in the bark, prominent among which are *cinchonia*, *cinchonidia*, *quinidia*, etc. Precisely how many of these alkaloidal principles the different kinds of barks contain, is unknown; but it is safe to assume that there are as many as four others which, although not distinctly pointed out, are tolerably well recognized. These *kinates* are all *kindred* in nature, and all labor to the same end, when isolated and set to work as therapeutical agents in the human system.

In one hundred ounces of good yellow bark, we obtain about two and three fourths ounces of quinia, and two ounces of cinchonia with variable amounts of the other principles, but less than the two named. It is to be regretted that we cannot remove the different families of kinates from the bark in their natural state of saline combination. It seems reasonable to suppose their action upon the system would be more salutary than in other forms. It is easy to isolate the kinic acid, and having the alkaloids, the kinates of quinia, cinchonia, etc., can be reformed; but in these chemical changes so much disturbance to natural organic combinations is made, that, practically, we realize no marked advantages. It seems unnatural to force a natural alkaloidal base out of its association with an organic acid, and recombine it with a mineral acid. This we do in the preparation of the sulphate of quinia. However, as it has served so good a purpose for many years, it is not best to quarrel with the theory.

All the alkaloids of bark possess about equal febrifuge and tonic properties when isolated and administered in that condition. This has been proved over and over again by all competent chemists and physicians, from Drs. Gomez, Duncan, Pelletier, Caventou, down to the time of Liebig's researches a quarter of a century ago, and from that time to the present by a hundred careful chemical and medical observers.

How the one alkaloid, quinia, came to supersede the others, and drive them into the background, is easily understood when we remember that it was about the first that was distinctly eliminated, studied, and experimented with; and the *éclat* it acquired caused everything else to be neglected. The natural bark, holding the alkaloids, the quinia, cinchonia, quinidia, etc., has always been observed to produce more efficient and prompt results, both as a

tonic and febrifuge, than the quinia, or either of the other principles in themselves; but holding also, as it does, tannin, starch, fibrin, and coloring matter, all of which are medicinally interfering or inert, its use is rendered inconvenient and inadmissible in many cases. Besides, it is apt to produce disturbance of the gastric functions of an unpleasant character. Acting upon the idea that the natural alkaloidal principles of bark, in their simple, unchanged condition, separated from the gross, woody, and other matters, would better subserve all therapeutical ends than the barks themselves, or *any one* of the alkaloids separately employed, Cincho-Quinine has been prepared.

Cincho-Quinine contains no external agents, as sugar, licorice, starch, magnesia, etc. *It is wholly composed of the bark of alkaloids:* 1st, quinia; 2d, cinchonia; 3d, quinidia; 4th, cinchonidia; 5th, other alkaloidal principles present in barks, which have not been distinctly isolated, and the precise nature of which are not well understood. In the beautiful white amorphous scales of Cincho-Quinine the whole of the active febrifuge and tonic principles of the cinchonia barks are secured without the inert, bulky lignin, gum, etc. It is believed to have these advantages over sulphate of quinine:

1st. It exerts the full therapeutic influence of sulphate of quinine in the same doses, without oppressing the stomach or creating nausea. It does not produce cerebral distress, as sulphate of quinine is apt to do, and in the large number of cases in which it has been tried, it has been found to produce much less constitutional disturbance.

2d. *It has the great advantage of being nearly tasteless.* The bitter is very slight, and not unpleasant to the most sensitive, delicate woman or child.

3d. It is less costly than sulphate of quinine. Like the sulphate of quinine, the price will fluctuate with the rise and fall of barks, but it will always be less that the lowest market price of that salt.

4th. It meets indications not met by that salt.—*Boston Journal of Chemistry.*

Sexual Excess in Marriage a Cause of General Paralysis.

The eminent alienist, Dr. Henry Maudsley, at a meeting of the Psychological Society, reported in the *Journal of Mental Science*, said he should like to take this opportunity

of ascertaining, from the experienced gentlemen present, what opinion they had been led to form as to the most common cause of general paralysis. He had formed a very definite one, namely, that in the majority of cases sexual excesses were really the efficient cause. He had seen many cases in which, when a sufficiently close inquiry was made, this had proved to be the case. He might mention one. Some years ago he saw, in consultation, a married gentleman who was afflicted with this disease, and gave an opinion as to its nature and prognosis. In the course of conversation with the medical man, he asked whether there was not any suspicion of sexual excess, but there had been no evidence of it. Some time afterwards the same medical man brought another case to him, and reverting to the question in the case of the former patient, who was now dead, said that after his death his wife had informed him that during the whole period of their married life, which had lasted several years, he had not refrained for a single night, except at certain periods. He mentioned this case because it really illustrated what is most important to bear in mind when examining into this kind of causation. There were many persons, some of whom would be described as patterns of moral rectitude, who never dreamed that there could be such a thing as sexual excess after marriage, and would almost regard it as an unholy suggestion. In making inquiries, therefore, it was necessary to pursue the matter closely, and not to be content with a general denial, which might, though honestly given, be worth nothing at all. Of course it was necessary not to mistake the effect for the cause. It was common enough to find an increased sexual desire at the beginning of general paralysis, which was followed soon by impotence. What he wished to direct attention to was not to such outburst of excesses as were patent to all the world, but to that quiet, steady continuance of excess for months or years, by married people, which was apt to be thought no vice or no harm at all. He would by no means venture to say that sexual excess was the sole or entire cause of general paralysis; in some cases there might be no evidence of it, while in others, in which it had undoubtedly existed, it was a question whether other co-operating conditions were not an essential part of the cause; notably, for example, a certain sanguine and expansive temperament. But of the efficiency of sexual excesses, as an exciting cause, he entertained no doubt.

Dr. Sheppard said he had often had occasion to differ from the President, but he entirely agreed with him on

this occasion, and fully endorsed the opinion which he (the President) had just expressed. He believed that the most fertile cause of general paralysis was undue indulgence of the sexual appetite; but, of course, it was very difficult to dissociate this cause from the excesses and general sensual indulgences which commonly accompanied it. It was difficult to make the friends of patients see this, and when wives were cautioned against being too loving toward their lords, they blushed assent to the advice, knowing their incapacity to carry it into effect. He had seen many cases of so marked an improvement in all the symptoms of general paralysis, after some months' residence in an asylum where no demand was made upon the procreative organs as to justify the return of a patient to the outer world. But the poor fellow soon tumbled to pieces again under a legitimate indulgence which has the power of undermining, to a singular extent, all stability of nerve-element.

Dr. Tuke—My own experience leads me to an opinion the very reverse of that of our President. I have seen, probably, as many cases of general paralysis in the higher classes as most physicians, and I have not found undue sexual excess a predisposing cause; the victims of general paralysis are very frequently men of fine physique, and excessive sexual indulgence is, of course, more frequent with such men, but I have seen men of exemplary lives and subdued passions as often suffer. The effect may be, and sometimes is, taken for the cause of the disease; general paralysis, although usually associated with want of power, is sometimes ushered in by excessive sexual desire. I have seen several instances of this, and Guislain mentions his having observed the same thing. In one case, a man of high intelligence and moral rectitude, this symptom was very distressing, and I ascertained that it had appeared for the first time synchronously with the brain symptoms.

Dr. Sankey had generally found the subjects of general paresis were of strong sexual passion; he had also found this among women in many cases that were put down to paralysis; he should consider them cases of ataxy, but they were closely allied.—*Medical and Surgical Reports, July*, 1873.

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One of the best methods of treating neuralgia is that recommended by Frosseau [Trousseau?] A tight top thimble is filled with cotton wool, and a few drops of

strong aqua ammonia dropped on it. The open mouth of the thimble is then applied over the seat of pain for a minute or two until the skin is blistered. The skin is then rubbed off, and upon the denuded surface a small quantity of morphia (gr. $\frac{1}{4}$) is applied. This affords almost instant relief. A second application of the morphia, if required, is to be preceded by first rubbing off the new formation that has sprung up over the former blistered surface.—*Medical Archives.*

The Therapeutical Uses of Cabbage Leaves.

Dr. Blanc has written an extended article on this subject in the *Revue de Therapeutique.* His conclusions are as follows:

1. The cabbage leaf excites and augments the secretion of ulcers, ulcerations, vesicles and pustules. It has the same action on the integuments affected by an erysipelatous or furunculous inflammation, but removes tissues in a morbid condition.

2. This augmentation of suppuration is constantly followed by an amelioration and often by a cure. It is the condition necessary to the result, and the property of the leaf which determines this result is an indirectly curative property.

3. This property does not consist in any principle which the leaf yields for absorption, but rather in an affinity which the leaf has for the vitiated secretions.

4. The leaf exercises this affinity on open ulcers, or on ulcers covered by a thick or thin scab or crust; it exercises it on the thickened epidermis, or where it is converted into thickened rind-like membranes.

5. When the tegumentary affection is wide-spread or general, the action of the leaves on the parts where they are applied benefits the whole disease.

6. The matter in the parts not covered by leaves is absorbed and at once directed under the leaves to be immediately excreted at that part.

7. Treatment, by the leaves, of a suppurative affection prevents reabsorption and consequent pyæmia.

8. The cure obtained by this means is more complete and certain than by any other, because it is brought about only when the cause and products of disease are eliminated from the system.

9. This mode of treatment is in perfect harmony of action with the *vis medicatrix naturæ*. This essays, in skin diseases, to eject from the system their cause and effects, whilst the leaves aid this action.

10. The cure of an ulcer by the leaves, however wide-spread and long-standing it may be, is without danger, and relapse is very rare.

11. The cicatrices obtained by the leaves are remarkable for their small degree of deformity.

12. Small-pox, measles and scarlatina treated by applications of the leaves, have few or no sequelæ; *e. g.*, phthisis is not to be feared.

Tea Drunkards.

Dr. Arlidge, one of the Pottery Inspectors of Staffordshire, has put forth a very sensible protest against a very pernicious custom which rarely receives sufficient attention either from the medical profession or the general public. He says that the women of the working classes make tea a principal article of diet, instead of an occasional beverage. They drink it several times a day, and the result is a lamentable amount of sickness. This is no doubt the case, and, as Dr. Arlidge remarks, a portion of the reforming zeal directed against intoxication might be wisely diverted to the repression of this very serious evil of tea-tippling among the lower classes. Tea, in anything beyond moderate quantities, is as distinctly a narcotic poison as is opium or alcohol. It is capable of ruining the digestion, of enfeebling and disordering the heart's action, and of generally shattering the nerves. And it must be remembered that not merely is it a question of narcotic excess, but the enormous amount of hot water which tea-bibbers necessarily drink, is exceedingly prejudicial both to digestion and nutrition. In short, without pretending to place this evil on a par as to general effect with those caused by alcoholic drinks, one may well insist that our teetotal reformers have overlooked and even to no small extent encouraged a form of animal indulgence which is as distinctly sensual, extravagant and pernicious as any beer-drinking or gin-swilling in the world.—*Boston Medical and Surgical Journal.*

Ergot as a Remedial Agent in Epidemic Cholera.

BY G. E. SUSSDORFF, M. D., MACON, GEORGIA.

In America, the most successful plan of treatment has been by preventing or contracting this transudation or hemorrhage. It seems almost certain that if you can stop the premonitory diarrhœa, you have prevented the disease, and it seems even more certain that, when this hemorrhage or transudation into the bowels has been established, if you can arrest *it* before too great changes have been wrought in the blood-plasma, you may generally expect a complete recovery. The retention in the blood of this poison does not appear to give any more trouble—its effects are *transient*.

The great object, then, seems to be to find some agent which will be prompt in producing a powerful astringent influence upon the whole circulation, but especially upon the capillary system.

I believe ergot capable of inducing this condition more effectually than any other remedy known to us, and that it will prove in this way a remedy of the utmost importance in the treatment of epidemic cholera. If it controls hemorrhages of the *blood*, it is likely to control hemorrhages of *serum* of the blood. It probably acts as an astringent, principally by its influence upon the great nerve *centers*, by inducing contraction of the unstriped muscular fibre, wherever it exists, but especially upon that in the capillary system, overcoming the general relaxation of these parts, and restoring them, in a great measure, to their normal condition. It seems to me ergot is likely to do good in the condition of *collapse*, by contracting the calibre of *larger blood vessels*, and giving power to the heart to propel the thickened blood, and at the same time allowing the absorption of water into the circulation.

These views are based entirely upon *theory*. I have been unable to put them into practice myself, and I offer them to the profession for what they are worth, with the hope that this agent will prove all I expect. I might add that the best way, in my opinion, to use ergot, as a rule, will be by the hypodermic method, in half-grain doses of ergotine, frequently repeated, until some benefit is experienced.

This remedy may be used at any stage of the disease, from the first premonitory diarrhœa to the last condition of collapse. If it can be administered early in the disease it will likely give better results, while the circulation of

blood is still sufficiently active to carry it to the nerve centres. Yet it is likely to do much good even in the cyanosed condition of collapse.

The administration of ergot can do no harm if it do no great good, and I know of nothing contraindicating its use. It will not interfere with the treatment as generally adopted by the profession at the present time.

Not having an opportunity of testing these views, I can offer nothing more upon the subject for the present, but trust those who may meet with the disease will give the remedy a thorough and faithful trial.—*Atlanta Medical and Surgical Journal* 1873.

Book Reviews.

HAND-BOOK OF PHYSIOLOGY. By Wm. Senhouse Kirkes, M. D. Edited by W. Morrant Baker, F. R. C. S., Lecturer on Physiology and Assistant Surgeon to St. Bartholomew's Hospital; Surgeon to the Evelina Hospital for Sick Children. A new American (from the eighth enlarged English) edition. Philadelphia: Henry C. Lea; San Francisco; A. Roman & Co.

This work, the first edition of which was issued by Wm. Senhouse Kirkes and James Paget some twenty-five years since, is one with which the profession are perfectly familiar. Yet in this the eighth edition, the additions and corrections of former issues are quite noticeable, rendering the book more complete and valuable to those for whom it was designed.

Although Dr. Kirkes, its author, has some years since passed away in response to that summons which all will have to obey, Mr. Baker, its editor, has successfully maintained for the work the reputation it so deservedly earned in its first editions.

The system adopted in presenting the science is both comprehensive and concise, rendering it a *multum in parvo*, and just what the student in medicine needs. Perhaps at the present time, and for a number of years past, no book

has enjoyed the reputation as a hand-book that has "Kirke's" Physiology," and we are sure that none extant is so deserving.

THE HAND-BOOK FOR MIDWIVES. By Henry Fly Smith, B. A. M. B., Oxon, M. R. C. S., Eng., formerly Physician to the Dispensary, Exeter, late Surgeon-Accoucheur to the St. James' Dispensary, late Assistant Surgeon at the Hospital for Women, Soho Square. London: Longman, Green & Co.; San Francisco: A. Roman & Co.

The little book before us is doubtless, as its title implies, intended for what are known as "midwives," or women who make a profession of that of which they are usually utterly ignorant—"midwifery."

If the work before us, by being placed in the hands of this class of females, would attain the end set forth, we would most earnestly advocate its use. But, we in the first place, very seriously question the possibility of educating thoroughly any one through a single book of the character of Mr. Smith's, as it is an axiom as old as the science that "a little knowledge is dangerous." We cannot see that the author of this work has in anywise contributed to the science or given a boon to suffering women.

We confess that an effort has been made as successfully as was possible in the space, to present the whole subject; but too much was undertaken and too little accomplished, and hence we doubt the usefulness of the book.

Whilst we are not opposed to the education of women who may desire to be instructed in the *mysteries*, or science and art of medicine and midwifery, we hold that to attempt to separate the one from the other necessarily so cripples the whole as to render it worse than useless to the patient and unprofitable to the practitioner.

Like works on domestic practice generally, of which there are many, bearing as authors the names of distinguished men, this volume aims at more than it will accomplish, unless it be that the aim is merely to put "filthy lucre" in the purse of its author.

THE

WESTERN LANCET:

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MEDICAL AND SURGICAL SCIENCE.

FOR NOVEMBER, 1873.

Surgery.

Letter from G. L. Simmons, M. D., of Sacramento, from London, England.

11, QUEEN SQUARE, BLOOMSBURY, W. C.,
LONDON, October 12th, 1873.

DEAR DOCTOR :—I will fulfill my promise to write to you from abroad, in case I saw anything of interest, by calling the attention of your surgical readers to Esmarch's method of suppressing hemorrhage during operations upon the extremities, and which enables the surgeon to pursue a dissection, as easily and minutely upon the living as upon the dead subject. As you are doubtless aware, the method consists in the simple application (from the toes or fingers upwards) of an elastic bandage two and one half inches in width. As the turns of the bandage ascend by the exercise of considerable force, the blood is driven from the veins and arteries, and when any desired point is reached, a piece of half inch rubber tubing is brought two or three times tightly around the limb just above the bandage, and tied. The bandage is then removed.

By the kindness of Mr. T. Smith, who now fills the post of surgeon at St. Bartholomew's Hospital, made vacant by the death of Holmes Coote. I was invited to see him operate in a case where the circulation was suppressed by the elastic bandage. A boy with a diseased tibia, was put under the influence of chloroform, the bandage applied, and the diseased bone removed. The experiment was so completely successful that no blood was lost during the operation, all of the tissues being blanched even to the osseous structure. I need hardly remind you, as remarked by Mr. Smith, "that this operation is usually made slow and troublesome, by the constant welling-up of blood."

Mr. Cripp, the house surgeon at St. Bartholomew's, showed me a modification of Esmarch's method which discards the bandage, and relies upon a seven inch ring of three eighths inch rubber tubing for compression. After making a few turns at the very extremity of the limb, the tubing is carried upwards on a reel, and fastened where desired. A description of his modification is published in the LANCET of this date.

At King's College Hospital, I saw Mr. John Wood operate in a case of a diseased elbow, where it was necessary to open long and numerous sinuses, and so exsanguined were the tissues, that not a drop of blood was evident, and the surgeon stated, that he could define the structures as clearly as if a dead limb were under his knife. He also mentioned a case of a late operation upon an arm, very near to the axilla, where he had first forced all of the blood out of the limb by elastic pressure, and had then applied a pad over the axillary artery, keeping it in place by numerous turns of rubber tubing over the shoulder.

Although no bad effects have been evident from the adoption of this plan, in several of the leading hospitals in London, it has been suggested that so perfect and prolonged a pressure upon the vessels of a limb, might lead to the formation of a clot which, being carried into the circulation, would lead to evil results. Others intimate the possibility of forcing septic matters into the veins, in certain cases.

To avoid this, in a case of amputation at the thigh, for gangrene of the foot, which occurred at St. Thomas' Hospital, the surgeon in charge, ordered the elastic bandaging to be commenced above the dead parts. Whatever may be thought of Esmarch's plan in amputations, there can be no doubt that it possesses special advantages in cases of operations upon tumors, sinuses or diseased bones of the extremities. G. L. SIMMONS, M. D.

[The description (alluded to above) of Mr. H. Harrison Cripp's modification of Esmarch's Elastic Bandage, will be found in the miscellaneous department of this number of the LANCET.—EDITOR.]

Compound Fracture of the Humerus. Resection and Recovery.

BY E. B. ROBERTSON, M. D., SAN ANDREAS, CALIFORNIA.

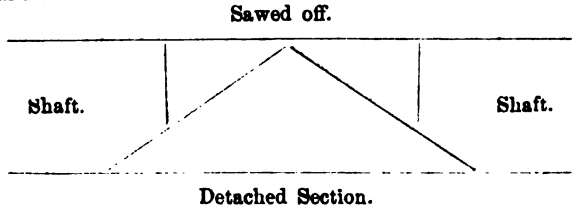
I was called by the late Dr. A. H. Hoerchner, of Mokelumne Hill, in consultation to see, and, if necessary, to operate on a case of gun-shot wound of the arm. On arriving at the bedside, I learned from the patient and his friends the following history of the accident.

A. C. Snider, of Sacramento City, about 27 years of age, and of good constitution, in company with two other young gentlemen, while journeying near Mokelumne Hill had occasion to take a shot-gun from a wagon. The gun was loaded with small shot, and lying in the wagon with the muzzle towards the hind gate. He caught hold of the gun near the muzzle with the right hand and drew it obliquely towards him from right to left, when it was discharged, the entire charge of shot passed (in a body) through the left arm from before backwards, lacerating the belly of the biceps muscle about four inches above the

elbow joint, near its centre, fracturing the humerus, and passed out through the triceps muscle posteriorly.

Upon examination it was discovered that the large vessels and nerves were uninjured, and consequently amputation, in my judgment, was not necessary. Dr. Hoerchner, however, thought that as the weather was hot and the injury so extensive, that amputation offered the only safety for the patient. These facts taken together indicated that we could scarcely expect to save the limb, or if successful in that, that bony union, after the removal of so much of the shaft, could scarcely be expected. Yet I contended that we ought to make an effort, and if gangrene should set in, we could amputate as a secondary operation with as much safety to the patient as a primary operation would afford; that even if we should fail to secure bony union, and only obtain a ligamentous connection, the limb would then be better than none. (To digress a little, I would state that in my practice here in the mountains, where malaria is almost unknown, warm weather is no contraindication to an important surgical operation. Give me an abundant supply of pure water and ice, and I have no fears because of the warm weather.)

Upon examination of the bone it was found to be completely shattered, and one large triangular piece (besides several spiculær) broken out; that is to say, there were two oblique fractures, both terminating at about the same point. After the removal of the detached portion, the obliquities of the two main fragments pointed to the same side, so that coaptation of the fractured surfaces was impossible, except by changing their form with the saw. Subjoined we append a rude diagram, showing the relations of the fractured bone:



I proposed, and with the consent and assistance of Dr. Hoerchner, and the aid of Mr. Pierce, who chanced to be present, performed the following described operation:

Patient placed on an ordinary dining-table, reclining on the right side so as to bring the left arm within easy command; head raised on pillows; chloroform administered to the extent of complete insensibility. An incision was made to the extent of about two inches below and to the same extent above, making the opening in all (allowing one inch for the wound) about five inches along the centre of the triceps muscle.

The fragments were then alternately turned out and sawed off to the extent shown in the diagram, with an amputating saw; replaced, brought into coaptation and the rectangular wooden splints applied, padded so as to adapt them to the irregularities of the limb, and secured by spiral and reverse turns of a roller, a space being left uncovered before and behind, opposite the wounds, for the purposes of frequent inspection and dressings. The wound was dressed with lint saturated with cool water.

I saw no more of the patient until January, 1870, when I was in Sacramento on business and found him clerking in the Sacramento Savings Bank. The only difference in the limb was its being a little short, but he could use it for all ordinary purposes. It is proper to state here that Dr. Hoerschner was in charge of the case and conducted the after treatment.

On Certain Deformities of the Hand.

BY CHARLES B. BRIGHAM, M. D., HARV.: PROFESSOR OF ORTHOPEDIC AND MILITARY SURGERY IN THE UNIVERSITY OF CALIFORNIA.

In the deformities of the hand, the skin, connective tissue, aponeuroses, tendons, and bones may each play a distinct part. The deformities may also be congenital or not, and

in the former class we have the various monstrosities, the simplest and commonest of which is polydactylism. There are a few interesting points which these supernumerary fingers present, the tendency of the deformity to be hereditary like that of hare-lip or cleft palate; the relative position of the supernumerary finger with regard to the neighboring articulation, it often forming a part of it, or else, but rarely, the metacarpal bone has two distinct articulations, and is bifurcated to a certain extent so as to accommodate the extra finger. In a surgical point of view, we are called upon to treat these deformities at birth or soon after, and to be careful not to interfere with these company articulations, if we can so call them; for we must bear in mind how seldom it is that, the articulation once opened, the joint recovers without leaving the finger stiff from anchylosis.

The fusion of two or more fingers, usually the last two, is another of the congenital deformities which is moreover often symmetrical. So complete is this fusion at birth in some cases, that it is difficult to distinguish whether one or two sets of phalanges exist in the mass, especially if we are misled by the presence of but one broad finger-nail. In such cases it is best to postpone surgical interference until the fingers growing larger, the division is more distinctly felt; then either an incision made exactly in the middle line may divide them, or a threaded needle being passed through at intervals and the thread drawn tight, the intervening tissue may be strangled and so allow the fingers to separate. This last means of treatment is apt to cause too much destruction of the skin on either side of the ligature. It is at the fork where the fingers bifurcate, that it is difficult to find enough tissue to cover the wound, and if we leave it to granulate, the cicatricial tissue will be apt to draw the finger close together again. It is then good practice to cut a little flap of skin from the back of the hand, and turning it about fix it by sutures over the wound between the fingers: thus we avoid all danger from lateral contraction, and in order to

prevent the fingers from curling up they should be carefully kept on a straight splint, at intervals of a week at a time for some months after the cicatrix has formed.

In contrast to the apparent deficiency of fingers is the partial or total absence of them. In partial deficiency, deep furrows may nearly separate one part of the finger from the other, so as to give one the idea that they were nearly amputated during fœtal life; but indeed there is no reason to disbelieve the theory that the deficiency was caused by an arrest of developement. In the complete loss of a finger, be it congenital or from accident, in case it is an object to the patient to have a narrower hand, so as to conceal the loss of the finger, the metacarpal bone which should belong to it may be resected out, and it is astonishing how much narrower the hand is made by the operation. Now if the risk of resection seems too great, we can, by cutting off the head of the metacarpal bone, diminish somewhat the width of the hand without great comparative risk; of course, in the hand of a laboring man width is very desirable, and no operation to diminish it should be practiced. Double hands have occasionally been met with, and as far as the history of reported cases goes, they are nearly as useful as single ones. Every one knows what strength the stumps of amputated fingers possess, and it is not unreasonable to suppose that if the two parts of the hand, each having its four fingers, could be brought into close apposition that the grasping power would be by no means a slight one. It is curious that the two cases reported by Giraldes and Murray neither possessed thumbs, and both arose apparently from the carpus itself.

In congenital deformities of the dorsum of the hand arising from ill-formed or superfluous bony tissue, surgical interference meets with indifferent success. We should not ignore as a means of treatment the value of well directed and careful pressure exerted on the deformed part as soon after birth as practicable. The Chinese, taking advantage of the ready moulding of the foot in infancy, by pressure arrive at distorting

its bones and diminishing their size by a process of bandaging—the deformity is much easier made than remedied, although Dr. Little in his work on deformities, affirms that the condition of deformity can be remedied in a few weeks, even after 30 or 40 years duration ; but the process gives a valuable hint for the treatment of cases where operation by the knife is impracticable. The skulls of the flat-head Indians, and of certain of the ancient Peruvians, bear the evidence of the effect of pressure upon bone ; and indeed pressure has made so many deformities that it seems no more than fair that it should be used as a means of remedying them.

Subcutaneous division of nodules of bone which so project as to constitute a deformity, is an operation which in certain cases offers a chance of success ; the bone is divided by a fine chain saw, and the sawed fragment is by degrees pushed along under the skin at a small distance from its original position, just as floating cartilages of the knee joint are sometimes treated, and then let out by a suitable incision made upon it. Osteotomy in the continuity of the long bones for the establishment of false articulations was originated by Dr. Rhea Barton about the year 1835, and the success of his almost subcutaneous operations adds to the favorable progress in this manner of treatment.

A certain class of hand deformities arise from the hypertrophy or atrophy of its tissues. Now and then cases are met with where a finger is double or treble the normal size, all its tissues having impartially undergone an increase of growth. In the treatment of such deformities would it not be well to adopt the method of Prof. Carnochan in his treatment of elephantiasis, namely to ligate the main nutrient vessels ? So likewise an equal diminution in size may result from general atrophy.

The increased nutrition of the bony tissue in fingers exhibits itself occasionally in bony and cartilaginous tumors of the phalanges, creating an unsightly deformity of the finger only to be remedied by amputation ; for the bone

and periosteum are so implicated in these tumors that it is impracticable to preserve them. Scrofula often shows its influence in producing deformities of the hand, the fingers being drawn out of place and contracted in various positions. The bone disease often destoys the phalanges and they come away through the fistulous openings that undermine the tissue. Operative interference effects but little in these cases, and amelioration of this condition of things if at all possible is only brought about by hygienic treatment. In gouty persons the tophaceous concretions formed of urate of soda, make little hillocks just over the articulations, and they affect the diarthodical cartilages and surrounding ligaments, often causing serious contractions. It is not difficult to understand then that the deformities which these cause are best treated by being let alone.

There is however another class of deformities, which dependent upon a rheumatic or gouty diathesis, is yet amenable to treatment. I refer to the non-congenital contracting of the fingers caused by a thickening of those prolongations of the palmar fascia which are attached to the ligaments of the articulation between the first and second phalanges. One or more fingers may be thus contracted and with certain occupations the inconvenience experienced by the deformity is a serious one. Unlike the congenital contractions they may often be temporarily remedied by an apparatus which exerts an extension upon them, but to make the cure a radical one it is better in addition to divide the fascia subcutaneously. We see this form of contraction among laborers whose fingers are flexed in their work for long periods at a time ; also among professional rowers, and it is worthy of note that among habitual drunkards we may have a similar pathological condition. A case of contraction of all the fingers of one hand following an attack of phlegmonous erysipelas came under my notice lately—the fingers were semi-flexed and it was impossible to free them from this position by moderate force. There was no rigidity or contraction of the tendons as far as could be made out by close examination, indeed the patient

said that with the hand and fingers bound to a straight splint for a few weeks all contraction disappeared but gradually returned as the hand became free again. In this case the only course to pursue with the view of permanently remedying the contraction would be to divide the fascia subcutaneously and then afterwards apply the splint. Congenital and hereditary contractions of the little finger are not uncommon, deriving in general their condition from fascial disease, they are treated in the manner just described. Contractions of the hands and fingers resulting from affections of the tendons may be of spasmodic or paralytic origin, or the result of the exposure of tendons from wounds. Electricity has been used in the treatment of the first two varieties of the contractions without satisfactory result, and tenotomy is attended with so little risk that it is worthy a first place in treating these deformities; the important precaution to be taken in all operations of tenotomy that of injuring as little as possible the sheath of the tendon should be born in mind, for as we wish to remedy the contraction by the division of the tendon so it is important that our operation should not give rise, by the adherence of the divided ends of the tendon to the neighboring connective tissue, to the very contractions we wish to avoid. The utility of dividing the flexor tendons of the fingers was for a long time put in doubt. M. Jules Guerin, of Paris, has shown the possibility of cutting one of the flexor tendons without injuring the other in such a way that both preserve independent movement after cicatrization. M. Richet has offered the following resumé on this point:

1st. That it is possible to practice tenotomy of flexor tendons alone, just over the phalanges.

2nd. That it is proved by facts that their independent cicatrization can be expected.

3d. That the cicatrization of the deep flexor tendon, cut in the synovial, osteo-fibrous sheath in front of the second phalanx, is possible to say the least, but that it is not elsewhere indispensable for the preservation of the movement of the phalanx.

4th. Finally that tenotomy of the flexors in front of the fingers, in cases of contraction of these muscles may be a useful operation, but it must be reserved for those cases only, in which orthopedic apparatus has been found useless.

Deformities of the hand from unreduced dislocations, occasionally occur. In the carpus the bones are so small and the articulations so solid, that dislocations rarely occur, unless from severe blows, or from falls from a distance. The cases of metacarpal dislocation, are very rare. Those of the phalanges on the metacarpal bone, are more common; while again those of the terminal phalanx, whether in front or behind, are rare. Every one who has tried to reduce a dislocated finger, knows how difficult it is to accomplish even when the luxation is a recent one; the obstacle to reduction being according to Pailloux and Richet; the interposition of the anterior ligament of the articulation between the articular surfaces. Others, as Hey and Dupuytren, imagined the lateral ligaments to be at fault; while Follin, leans to the idea that the flexor tendons becoming interposed, hinder the reduction, or form a loop with the adductors, through which the strangled bone is held tight. Malgaigue, had perhaps the most correct notion, when he regarded the locking of the bones themselves through their irregular surfaces, as the chief hinderance to reduction. Whichever may seem to be the cause, the difficulty of reduction remains the same, naturally being increased as the luxation is older. A case of dislocation backwards of the terminal phalanx of the third finger, presented itself to my notice not long ago. Three years had elapsed since the accident, which was caused by a base ball. Attempts at reduction made at the time were fruitless, and the deformity was a marked one. The patient was etherized, and by means of a fine tenotomy knife, one of the lateral ligaments was divided, and the phalanx was then forcibly bent back on the finger; it slipped into place and was put on a bamboo splint, to which it was bound by means of strips of court plaster. It remained

straight as long as held by the splint, but on removing it a few weeks after the operation, it slipped backwards a little towards its old seat; this was due to the imprudence of the patient, as he insisted on playing billiards, and driving a four-in-hand a few days after the operation, so little inconvenience did it cause him. That the lesion is a rare one may be realized when Erichsin makes the following remark: "I do not think that simple dislocation of the ungual phalanx from the second, is a possible accident." It is recognized and discribed, however, by several other eminent surgeons. The deformities of the hand arising from burns will be treated of in a future paper.

Local Employment of Chlorate of Potash in Cancerous Sores.

In the *Berl. Klin. Wochenschrift*, No. 6, 1873, Dr. Burow, of Königsberg, advocates the local employment of chlorate of potash in the treatment of cancerous sores. His proceeding consists in sprinkling the sore with chlorate of potash in powder or crystal, and covering the whole with a wet compress. As the crystals of chlorate of potash exert a more powerful action than the powder, and excite greater pain, Dr. Burow uses the powder first, and replaces it by the crystals when sensibility has been abated. One of the cases was a cancerous sore of the left arm, which healed completely after eight weeks' treatment. Three other cases were cancerous sores of the breast: one was lost sight of, the other two are under treatment and healing well. The fifth case recorded was connected with a cancer which originated in the periosteum of the upper jaw and cheek-bone, and then became ulcerated; in this case healing was complete in three months.—*Lancet, April* 12th.

THE FIRST OPERATION OF LITHOTRIPSY IN AMERICA.—Dr. Alban Goldsmith, the first assistant, to Dr. McDowell in many of his ovariotomies, made the first operation of lithotripsy ever performed in Kentucky or in the United States. It occured in 1829.

Institutes and Practice of Medicine.

On Chloral in Therapeutics.

BY DR. A. GUBLER.

[Translated for the WESTERN LANCET, from *Jour. de Pharm. et de Chimie*, September, 1873, by JOHN CALVERT, Esq., San Francisco.]

[Continued from last Number.]

Having proved experimentally that chloral can only produce insensibility by jeopardizing existence, it is useless to insist further on its rejection as an anesthetic. To dogmatically prescribe its use as such, would be an insult, not only to the feelings, but to the common sense of the medical fraternity.

But if prudence forbids us to seek for complete surgical anæsthesia through the terrible dangers of toxical chloralism, at least may we not employ chloral usefully to produce a certain degree of insensibility, and thus assuage the sufferings inseparable from many operations? I unhesitatingly reply in the negative, for two reasons: firstly, the result cannot be always obtained at will, and secondly, if it is desired to push the effect beyond hypnotism, no precaution can guard against those dreadful accidents occasioned by comparatively large doses.

The anæsthetic effects of chloral are so slight, that they have been denied by Messrs. Demarguay, Giraldés, Léon Labbé, and other French surgeons, as well as by some able German observers. Nussbaum declares that, having administered it twenty times before operations, he only saw anæsthesia produced in one case, that of a woman greatly debilitated. The patients did not suffer much, which is accounted for by its slightly stupefying action on the nerves of sensation, and particularly by the state of hypnotism in which they were plunged. On these two accounts, chloral may become the palliative of a great many painful affections, principally those included under the head of neuralgias, which it would be well to divide into neuralgias

properly so called, affecting the track of a nerve and its ramifications, and odynias, resulting from alteration of sensibility, painful, occupying a parenchymatous or tegumentary space, not circumscribed by the limits of one nervous region. The latter class includes the dermalgia of Beau, cystalgia or neuralgia of the neck of the bladder, gastralgia, and what I have temporarily called acrodymic neuralgias.

Amongst neuralgias, properly so called, or algias, as they are sometimes designated, there is trifacial neuralgia and sciatica. Chloral is useful in these, as well as in hepatic, nephretic, and uterine colics, in the pain of cancer, gout and rheumatism, pleurodynia, painful cramps, &c.

3rd. *Chloral as an antispasmodic.*

Even Liebreich himself found it of little use in hysteria. It is more efficacious in spasmodic cough, particularly in whooping cough, of which it reduced both the number and intensity of the paroxysms (Al. Maxwell, Rougeot, Ch. Murchison, W. J. Smith, K. Lorey) without any influence on the duration of the disease.

With respect to chorea, results differ. Dr. Rougeot claims to have made remarkable cures; under the influence of chloral, the mean duration of the malady was eighteen days, whereas with bromide of potassium it lasted thirty-nine days.

But in opposition to this brilliant showing, Cantini, Russell, Careuthers, and W. Hammond obtained much less satisfactory results, its only effect being a soothing one, with amelioration of the symptoms. Althaus resumes its qualities in the proposition "that it is a little superior to oxide of zinc or arseniate of iron," which is not saying much in its favor. Moreover, Hassewicz saw the arseniate of soda succeed where chloral failed, and in one case the latter appeared to give rise to asphyxia. In short, it appears from the facts published, that chloral is neither so efficacious, nor so innocuous, as the alkaline bromide; its influence does not bear directly on the seat of the disease, but gives relief by simply producing sleep.

4th. *Chloral in hydrophobia.*

Like all energetic agents, it has been tried in this, the most dreadful and unyielding of all contagious diseases. But I am of the opinion that it has only succeeded in cases of symptomatic hydrophobia. The child of twelve years who was cured by Nicholson, was certainly thus affected, and there is little doubt that Dr. Sainter had to deal with a case of spontaneous neurosis, accompanied with dread of water, very common symptoms with inveterate whisky drinkers.

Laying aside the drunken habits of the patient, we find, furthermore, in the description of Dr. Sainter, some particulars which render little probable the existence of true hydrophobic rabies; in the first place, the desire to bite, which, contrary to popular prejudice, never exists in man, and on the other hand, that frightful state of convulsion, during which the patient struggled so furiously, that it required no less than ten men to hold him. The paroxysms of hydrophobia do not produce so much disorder.

All the facts reported in England by H. W. T. Ellis and Th. Smith, and in France by Lionville, are quite negative. The latter could not obtain the least relief for his unfortunate patient.

5th. *Chloral in epilepsy, eclampsia, and child-birth.*

In a violent attack of epilepsy, chloral would be manifestly powerless; in a mild case, it would be superfluous, and would be too late. As to the constitutional condition on which the convulsive phenomena depend; as it proceeds from congestive raptus, it does not appear reasonable to combat it by means of a hypnotic, and consequently by a hyperemiant.

Puerperal eclampsia has been treated with chloral, and several physicians have testified as to its value, but my learned colleague, M. Depaul, is not satisfied with it, and I, also, am in doubt about it.

In midwifery practice, some give it as indiscriminately as others do chloroform. But men of a reflective turn of mind will not go so far. Simpson, to whom we owe the

introduction of chloral into obstetrical practice, only used it in cases of difficult labor. The conditions in which chloral appears to be of use, are the following: 1. When the rigidity of the neck prevents the termination of the labor (Caro, More, Malden); 2. When the patient is exhausted by rare and inefficacious pains (Gerson da Cunha) not because it suspends the contractions, but because it produces sleep (Lecacheur); 3. In the first stage of labor, to diminish the inquietude of the mother (Kidd). especially when primiparous; 4. When the accouchement is finished, to give rest and sleep (Philips). Finally, Dr. Lecacheur says, that chloral is perfectly harmless, both for mother and child.

On Paradoxical Medications.

Translated for the WESTERN LANCET
BY E. D. MARTINEAUT.

[BY Dr. A. Luton. From the *Gazette Hebdromadaire De Med. et Chirug.* August 29th, 1873.]

I understand by paradoxical medications that process through the aid of which we believe to have acted on a certain disease in a certain manner, when we have reached the result through an entirely different one. We have succeeded, and are the dupes of our success; the error is committed in good faith and is perpetuated under cover of success, to the detriment of scientific exactness.

This kind of illusion is more common than one would think, and is provoked by the necessity of explanation rather than remain in pure empiricism. We do not sustain the false in order to learn the truth as we already believe ourselves in its possession, nor do we pretend, according to the aphorism, "*naturam morborum curationes ostendunt*" (Hipp.) make of the adopted medication a clinical reaction;

the diagnosis of therapeutical indications, though so advantageous in practice, does not yet concern us. In our case, where paradox has seated itself at ease, the interpretation is false from every point; the conclusion at which we arrive is the more dangerous as we pretend to base it on well observed facts and on a chain of ideas which is perfectly rational.

It is only by means of well chosen examples that I shall be able to make myself understood, and with no more preliminaries I shall come to the pith of my subject.

At the head of those medicines, in the use of which truth and fiction go continually hand in hand, we must undoubtedly place the ferruginous preparations. There are none on which the imagination of therapeutists have been so much exercised. These preparations have been multiplied to infinity, and are still increasing every day; their clinical applications are incessant, even beyond real necessity. Sustained by the preparations of the barks, iron, as a medicine, is the pivot around which gravitates practical medicine, for we are in an epoch when asthenia predominates in pathology.

I maintain that in all combinations in which iron enters as a base, it is the electro-negative—the acid, if you wish—which is really the useful agent; while the electro-positive, the base is the residue—the caput mortuum of the alchemists—which is again eliminated after the utilization of the active element which it has served to introduce into the economy.

The idea that iron is an analeptic has gone by; ordinary food more than suffices to furnish the two or three grammes of iron which the totality of the blood of the human male contains.

In reality the martial preparations exert a topical action on the alimentry tract. They undergo, through the contact of the gastro-intestinal mucous membrane, in their transit from the mouth to the anus, divers and successive transformations. Finally, the residue of all these chemical operations are voided in the form of a blackish substance,

composed for the most part of sulphide of iron, the abundance of which leaves but little ground for those who pretend that iron is absorbed in a state of solution, and mixes itself with the vital fluid for its repair.

The most remarkable phenomenon in these transformations is the reduction of the persalts to protosalts. Thus the perchloride is reduced to a protochloride, and hydrochloric acid is set free. This fact cannot be doubted, as it takes place in a test-tube containing the persalt of iron and organic matter. We see the solution become discolored and the reaction distinctly acid; the mixtures and syrups of the protochloride undergo the same alteration if kept too long without using. For these reasons must a like phenomenon take place in the digestive tract, where all the conditions for such transformation are present. The hydrochloric acid set free acts on the system while the iron enters into new combinations, passing little by little to an insoluble and inert state, where it remains until voided with the other excrementitious matters recognizable by the black color of its sulphide.

The perchloride of iron a source of hydrochloric acid. Here is a result little expected and rather paradoxical; at least, in appearance. Now, the acid set free under these circumstances is the active agent in all those cases wherein compounds of iron are prescribed. Stomatitis, dyspepsia, gastric erosions, or simple ulcer of the stomach, are as well treated by the perchloride itself as by the hydrochloric acid more or less diluted. Again, as hæmostatics, these two substances are equal; the one as dilute acid, the other with its presumed ferruginous astringency. The consequences of these facts can be pushed so far that it becomes a matter of indifference whether we use the perchloride or simply the acid in the treatment of chlorosis.

We see that the terms of the problem are reversed; it is the electro-negative element which is alone used, the electro-positive being reduced to an inert vehicle which could easily be dispensed with.

The other salts of iron would give rise to the same actions. It suffices us to cite the theory of Rabuteau who

says that all the salts on reaching the stomach become converted into first a per then a protochloride of iron, thanks to the free hydrochloric acid contained in the gastric juice.

It is the idea in the theory of Mialhe that the compounds of mercury are reduced to an absorbable bichloride. It will be seen that the pharmacopia of iron would be much simplified as it would be necessary to prescribe once for all for its chloride. But this is not what should interest us here; for me the predominating fact is the possible disengagement of the electro-negative bodies, which will be according to circumstances sulphuric, phosphoric, citric, iodohydric or other acids. These acids will at one time be used as topical remedies to the gastro-intestinal mucous membrane; at another, they will liberate the hydrochloric acid from the alkaline chlorides. I may mention specially the iodide of iron; this compound results in an alkaline iodide which it would have been more simple to prescribe at once unless we attach some importance to the idohydric acid which is intermediately at a certain time. But from the favor which this medicine at present enjoys I hardly expect to successfully combat its employment, it is sufficient for us not to be the dupe of an illusion in its use.

Do not think that I condemn in an absolute manner the use of iron or its salts. I admit on the contrary that this metal is exceptionally advantageous, perhaps to the exclusion of all others for the introduction into the system of a goodly number of electro-negative or acid bodies. These substances employed directly are too offensive to the gastric mucous membrane and it is better that they should be presented in an extremely attenuated condition. The salts of iron with their tendency to peroxidation in the air, and by virtue of the property which they have of being reduced to protosalts when they are administered as medicine are perhaps the most convenient preparations we have when we wish to use acid medication.

Thus we see them succeed in atonic dyspepsia, in

hemorrhagic erosions of the stomach, resulting in simple ulcers in chlorosis or finally as general hemostatics not only as vascular astringents but by reducing the intensity of the alkaline reaction of the blood.

These are my first conclusions; they are new and unforeseen enough to apply the term paradoxical to such medications.

The analysis of medication by iron has been made with enough detail for me to glance rapidly over the other examples of paradoxical therapeutics which I propose to cite in support of my thesis.

I will mention first, ordinary alum (double sulphate of alumina and potassa); that its chemical and medical properties approach those of the persalts of iron. From my point of view it will be used as a source of sulphuric acid, whereas, according to the received opinions, it acts in totality as a salt of alumina. In any case it should not be looked upon as a simple sulphate as that of soda for example. Its manner of action is variable; if it remains in an acid situation such as the stomach it is not altered, but if it passes to an alkaline one, be it the intestine or the blood, it is decomposed. The sulphuric acid set free combines with the alkaline elements of the intestinal juice or the blood; furthermore, the hydrate of alumina tends to form an aluminate of soda and finally the bases are neutralized by the free, electro-negative element. The consequences of this are easily guessed.

From the considerations given frequent applications of alum receive rational interpretations according to our theory of its action as in saturnine and uræmic intoxication.

In saturnine toxæmia, the use of alum is equivalent to that of sulphuric acid lemonade, with this additional advantage that the acid being liberated little by little no evil results to the parts by which it is touched and we can thus administer a larger dose of sulphuric acid than by giving the lemonade. The chemical action on the sulphide of lead is incontestable and takes place at all points, even in the interstices of the organs, remaining unattacked by

the neutral sulphates. The sulphate of lead thus formed remains inoffensive and cannot be again taken up by the acid secretions like the corresponding sulphide. Thus alum far from constipating in these cases, finally brings about regular passages without the use of other drugs. My personal experience authorizes me to insist on the efficacy of this treatment in lead poisoning, assisted by hypodermic injections of morphia to relieve pain, there is no mode of treatment which is superior.

The use of alum in uræmia is just as rational. If these so-called uræmic diseases are caused by ammoniacal intoxication we see that alum by transforming the sesqui-carbonate of ammonia to a neutral sulphate of the same, an inoffensive salt, becomes a true antidote in these cases and constitutes a very efficacious means of combating the dangerous condition of which we speak. It is as well adapted to those cases of uræmia complicating chronic cystitis (fiévre urineuse) as to those in which the transformation of urea into carbonate of ammonia takes place on the gastro-intestinal surface in the course of granular degeneration of the kidneys. This theory of uræmia which completes that of Frerichs belongs to me. I announced it before Prof. Treitz who is reported to have imagined it, and having contributed to its edification. I now finish the sentence in advising the best treatment in these circumstances.

The introduction into the materia medica of certain insoluble arsenites will furnish me with new examples of paradoxical medication and will permit me to show to what point illusions in therapeutics may be carried, I will take the arsenites of antimony and that of iron.

In the iron salt there appeared to be realized a most happy association of two tonic principles. In addition to the fact that iron is the natural antidote to arsenic we thus obtained an almost inoffensive medicine. But in reality is the object aimed at obtained? I will not mention that the dose of iron thus obtained is insignificant in as much as it remains in the state of an inert-base, and is soon thrown out as a caput mortuurn in conformity to the theory announced

above, when speaking of the preparations of iron in therapeutics.

The arsenious acid soon combines with the soda of the fluids, and is the only element used, but here is where the advantages of the medicine of which we are speaking shows itself, for it is really a good preparation; the arsenic is set free from molecule by molecule; it presents itself in the nascent state and enters the economy in fractional doses, all conditions of reputed excellence in therapeutics being complied with. So that when we are treating a chronic disease in which arsenic is indicated, it is the arseniate of iron which we should use, but when we wish to act quickly as in intermittent fevers we should use a soluble arsenical salt.

The arseniate of antimony fills indications of the same kind, but I believe it inferior to that of iron as it is not so stable a compound, and the ease with which it gives up its acid renders it much too active. The illusion relative to this medicine which has of late been so highly praised has been as complete as possible though it has been the means of showing the good effect of arsenic in diseases of the heart.

I will now terminate this study by a rapid enumeration of the other cases which appear to bear on our subject, I will take the mercuries which whatever be their form are but equivalent to the chloride.

Then the alkalies which in small doses provoke by a sort of polarity and paradoxical contradiction the acid secretions of the stomach, and inversely the dilute acids which are used with advantage in certain engorgments of the liver to excite the formation of bile on alkaline fluid.

Again salts of organic bases which have a sour taste terminate in being but equivalent to an alkaline salt as the bicarbonate of soda.

It was believed that the subnitrate of bismuth was an excellent antigastralgic but this was at a time when it contained traces of arsenic, now it is deprived of that impurity, yet it is used for the same class of cases.

We apply iodised collars to goitrous patients and expect direct absorbtion, whereas it penetrates in an atomized

state by respiratory inhalation. We give charcoal under pretext of absorbing the gases in flatulent dyspepsia when we know that wet charcoal loses the power of doing so, and that it acts only like an inert mass in causing the bowels to be evacuated.

We prescribe the bromide of potassium as a succedaneum of the iodide whereas their action is antagonistic in the highest degree. The mineral waters would give us innumerable examples of the illusions voluntary and involuntary.

The progress of therapeutics will but enlarge the list of paradoxical medication, and it is probable that thanks to the fluctuations of doctrines and unforseen discoveries it may never be complete.

Suggestions in Relation to the Treatment of Cholera.

BY CH. RAUSCHENBERG, M. D., ATLANTA, GA.

The distinguished Professor Botkin, of St. Petersburg (Russia), in an article contained in Nos. 33 and 34 of the *Berlin Klinical Weekly* (Zur Symptomatologie und Therapie der in Petersburg in Frühjahre, 1871, Beobachteten Cholera) publishes a series of observations made in his clinic on twenty-three cases of well developed cholera, all with a much weakened or entirely imperceptible pulse. He arrives at the conclusion that the intestinal affection characterizing the cholera process is not the consequence of the local effect of the cholera poison, but the expression of a general infection of the blood; that the cyanosis, dyspnœa, spasms, etc., are not the effect of an inspissation of the blood, but of the infection itself, which frequently causes death without producing diarrhœa. He concludes that a therapeutical action directed against the symptoms alone is inefficient, but that the general infection must be counteracted, and insists that quinine is the remedy which will most effectually resist the deleterious influences of the cholera poison on the human system. He administered this remedy in all the cases spoken of above, in five grain

doses, two to four times daily. Where severe vomiting existed he gave it still oftener and generally hypodermically, and experienced only a mortality of 17.3 per cent. His favorite prescriptions are: ℞—Chinini muriat ʒ ss., acid muriat dil. gutt. xx; aquæ distil. ʒ v. M.—Sig. 15 drops, to be injected hypodermically several times daily, according to the severity of the case. Internally he uses at the same time: ℞ Tinct. chinini comp. spirit anodyne Hoffman ℥ ss., chinini mur. ʒ i., acid muriat dilut ʒ iss., olei menth. piper. gutt. x, sometimes with an addition of tinct. opii. simpl. ʒ i, at 20 drops four to six times daily. In light cases he used the latter prescription alone.—*Atlanta Medical and Surgical Journal, July*, 1873.

Sick-Headache.

In a report on the treatment of this distressing affection, Dr. Wilks recommends three remedies. To cut short an existing attack, he gives bromide of potassium in doses of gr. xv. to xx. One dose is often sufficient. As a prophylactic, he uses the cannabis indica. Of guarara, he says: —"Thirdly, guarara has been introduced to our notice as a remedy for sick-headache, and here again we have a very valuable addition to our Pharmacopœia. In many instances, especially those of ladies, I have had the most positive assurance given to me of the power of this drug in arresting headache, so that not the slightest doubt can be entertained of its immense value. A dose is usually taken when the headache is approaching; and if this is not quickly successful in arresting it, a second powder is swallowed; after an hour or so, if the remedy is to be useful, the headache has disappeared. I know of several cases in which the greatest enthusiasm is expressed by patients as to its merits. At the same time, I am constantly hearing of cases where it has failed. I am now trying it in smaller doses by daily administration.

"I feel certain that these three drugs—bromide of potassium, cannabis indica, and guarara—constitute a most important addition to our nervine medicines, and that in them we have remedies against a terrible complaint which, a few years ago, constituted the opprobrium of medicine. I might say that I know of cases where galvanism has very speedily cured a pain in the head; and I can call to mind

the case of a lady, where the application of the bisulphide of carbon invariably relieved the most severe headaches. —*British Medical Journal.*

A Cure for Diabetes Mellitus.

Professors Cantani and Primavera, of Naples, report the most extraordinary success in their treatment of this obstinate disease. Their statements are in brief as follows:

1. Their patients have all, with rare exceptions, recovered.
2. Stout persons have lost but little weight during the treatment, while spare ones have sometimes gained as much as twenty-five pounds.
3. Though the urine has become rich in urea and uric acid, the patients have never shown symptoms of gout or urinary calculi.
4. The treatment was also successful in arresting some instances of albuminuria that accompanied the disease.
5. The cure consists in an exclusive meat diet, and by this term fish is also excluded; further, at each meal is to be taken lactic acid ʒij—iv in water ℥ vj. As a substitute for wine at dinner, alcohol ℥ ss. with water ℥ vj is given.

Alcohol and lactic acid are designed to replace the saccharine and starchy elements of the food. To obtain a permanent cure it is necessary to persist in the treatment for several months after sugar has ceased in the urine. Then the patient may gradually return to a mixed diet.—*Allgemein Med. Central Zeitung*, 1873.—*Ibid.*

Cerebro-Spinal Meningitis.

Professor Loomis, of New York, who has considerable experience in the treatment of this affection, gives the following: Sol. saturat-potass. bromide, forty minims every two or three hours; quinine sulph., three to five grains every three hours; ice to the head and spine; blisters to the nape of the neck; bleeding, when the constitution of the patient will admit of it, and tonics during convalescence.

Gynecology and Diseases of Children.

Extraordinary Birth. A Woman Delivered of a Four-Months Fœtus and a Live Child at Maturity.

BY J. S. HUNTER, M. D., OF RIPLEY, LAUDERDALE CO., TENN.

On the 26th of April, 1872, I was called to Lizzie L—— colored, who, on my arrival, I found to be in labor with her third child. After the usual preliminaries, I proceeded to make an examination per vaginum. I found the os dilated to the size of a quarter dollar. She stated that she had been in labor about six hours, and that, since taking her bed, she had experienced "considerable cutting pains." After careful examination I could find nothing presenting, and concluded to wait awhile. In a short time I again examined her, and found the os considerably dilated, with something presenting that felt soft and round, and too small for a child's head. Concluded to wait, and let nature carry on the work, as I was unable to diagnose the presenting part.

Thinking I would have sufficient time, I went to a neighbor's house (about one mile off) to take supper, but I had been there scarcely half an hour when a messenger came for me, requesting me to return in haste, that "something had passed, and the women did not know what to do."

On my arrival, I found lying on the bed, between the mother's legs, a dead fœtus, with the cord still unbroken. I separated the cord, took the fœtus to a light, and examined it well. From its size and appearance, I judged it to be about four months. After interrogating the mother in regard to herself and the fœtus, I examined her again, and was somewhat surprised to find that she had not reduced any in size, leading me to the conclusion that there must be another child. This caused me to make a more minute examination, when I found another child with the head presenting naturally; and as the os was not, as yet, sufficiently dilated for the head to pass, I again waited for nature to set up the natural process of labor.

After waiting nearly an hour, I found she was having regular expulsive pains, which continued until the child was born. At this time there was no movement in the child that would indicate life. I immediately resorted to

the usual means of resuscitation, and succeeded in getting it to breathe and cry, but feebly. I separated the cord, and handed the child over to the nurses to have it washed and dressed. I then proceeded to remove the placenta.

Leaving the mother comparatively comfortable, I made a thorough examination of the membranes, etc., of the dead and live child, as the case was of some interest.

From the mother's statement, it seems that she was standing in the door of her house, with one of her children in her arms. She slipped and fell out of the door, and to save the child from injury, she held to it, falling at full length upon her abdomen on the ground. She states that she was, at this time, four months gone, which corresponds with the size of the fœtus. She complained but little; she had some pain, but after resting several days, was able to be out again. She states positively that there was no hemorrhage at that time, and none at any subsequent period. She continued her daily work up to the time of her confinement, and on that day did a half day's washing, besides other duties of the house.

I found the membrane and placenta of the dead fœtus to be in due proportion to the child, and perfectly sound, not even emitting a bad odor. The fœtus was also in a state of preservation—no decay at all, save a small portion of the cuticle of the scalp, which slipped off in handling. The uterine face of the placenta was hard, and had the appearance of a cicatrix, which is evidence in support of my belief that the entire separation of the placenta took place at the time of the fall, thereby causing the immediate death of the fœtus.

But here is another question—what became of the hemorrhage? (for there must have been some, somewhere); and a still greater wonder is, that there was not an abortion of the entire contents of the womb after such an accident. It is strange and unaccountable.

In this case is a clear demonstration of the power of nature to preserve and heal—sealing up, as it were, the breaches made upon the common economy—staying the hand of danger and the power of decay for five months, thus preserving half of her fruits to full term of maturity, and bringing it forth unscathed from the terrible calamity that befell its twin brother. The dead one was a male, the live one a female.

This case, which might be considered rather as a freak of nature than otherwise, is reported more on account of its rarity than for any peculiar or practical value it

possesses.—*Nashville Journal of Medicine and Surgery, September*, 1873.

Extract from Report on Obstetrics and Diseases of Women.

BY W. L. RICHARDSON, M. D.

INTRA-UTERINE MEDICATION.

Dr. W. S. Playfair (*Lancet*, Jan 4, 11, Feb. 15, 1873), opposes very strongly the use of intra-uterine injections. He believes that remedies can be applied to the interior of the uterus in a fluid state by a much safer method. After criticising the various ways recommended by writers on this subject, he proposes to use swabs made in this manner :—a series of uterine probes must be made with metallic extremeties measuring in length 2½ inches. They must be so fine that, when wrapped around with cotton wool, they will pass readily into the cavity of the uterus. These probes are attached to box-wood handles nine inches in length. The ends are made very flexible, so as to be easily made to conform to any flexion of the uterus. These probes must be wrapped smoothly and evenly with cotton wool. The os uteri is next exposed with whatever speculum is most convenient. The cavity of the uterus is then carefully wiped dry with one or more of these probes. This being done, a probe is next introduced, having been previously dipped in the agent to be applied. Care must be taken to wipe off any superfluous moisture, lest it run down into the vagina. The application of remedies in this way, if carefully made, is practically painless. As regards the particular agent to be used, there is great difference of opinion among writers on this subject. The best is a strong solution of carbolic acid prepared as follows :—add to the pure crystalline acid just enough water to keep it fluid (experience has shown this to be eighty parts acid and twenty parts water) ; an equal quantity of glycerine is then added ; to the exterior of the cervix the pure fluid carbolic acid may be applied, but for the uterine cavity it is better to dilute it with glycerine. The great advantage which carbolic acid possesses over other caustics is that it never produces an eschar, nor does it cause the

tissues to swell. In using it, therefore, we run no risk of causing any contraction of the cervical canal. The acid should be applied never oftener than once a week, and an interval of three or four days should always be left before and after the appearance of the catamenia. At first the application will often cause an increase in the amount of discharge from the uterus; but this soon subsides. The time required for the cure of a case of chronic uterine leucorrhœa varies greatly, and while one or two applications may be sufficient to effect a cure in one case, they may have to be continued for months in another.

Dr. Robert Barnes (*Brit. Med. Jour.*, Jan. 11, 1873) strongly advises that the use of injections into the uterine cavity be given up in all cases of marked flexion. Even if the cervix has been first dilated with tents, he does not consider their use free from danger, for it is impossible to prevent the flexion recurring, in which case the fluid is prevented from escaping. It is especially in these cases that the uterine cavity is usually enlarged and the Fallopian tubes dilated. Except in severe and urgent cases of menorrhagia, intra-uterine injections should never be used. The same agents can be applied in other ways, the most preferable of which is in the form of an ointment or plasma.

Dr. John Clay (*Lancet*, Nov. 30, 1872, Feb. 1, 1873,) recommends the use of an insufflator made very similar to that used for insufflating the larynx. The open end, however must be provided with a movable bulbous head, as otherwise it would be plugged up with mucous while being introduced within the uterine cavity. The pressure on the rubber ball not only opens the end, but ejects the powder at the same time.

Dr. J. Whitehead (*Brit. Med. Jour.*, Feb. 1, 1873) favors the application of remedies by means of Lallemand's porte-caustique. The ointment to be used is placed in the groove of the stilette, which is protruded after its introduction within the uterine cavity, and, by rotation, every portion of the mucous membrane can be reached.

Prognosis in Cases of uterine inflammatory Diseases. (*Obstet. Jour. of Gr. Brit. and Ireland*, July, Aug., 1873.) —Dr. E. J. Tilt considers that the danger to life from uterine inflammation is very slight, unless it gives rise to some complication such as ovaritis or peritonitis. The prognosis is bad if the patient comes of sickly parents, or has had herself an unhealthy girlhood, or other mucous membrane show a marked tendency to catarrhal inflammation. When the inflammation occurs in young women, as

the result of a sudden checking of the menstrual flow, the prognosis is favorable, unless the passion of the patient be very strong, in which case relapses will be apt to occur. Occasionally, however, the inflammation comes on during the period known as the change of life, or even subsequent to that; in these cases the prognosis is bad. Under the most favorable circumstances, the length of time required to effect a cure will be, to a certain extent, proportional to the duration of the disease before a proper treatment was begun. So long as the disease is limited to the cervix uteri, the prognosis is good, but the case is very different when the inflammation has passed from the cervix to the mucous membrane of the body of the uterus. If the body of the womb is found to be larger and harder than normal, the prognosis is very bad. Acute endometritis is a rare disease, and Dr. Tilt states that he has never seen a case of it where there were not evident signs of a pre-existing chronic inflammation of the body or neck of the uterus.

Spontaneous Reinversion of an Old Puerperal Inversion of the Uterus.

The patient was normally delivered of her twelfth child, August 21, 1872; complete inversion of the uterus was produced by undue traction on the child and placenta; the attempted reposition did not succeed, and the woman refused any further trial; two months later, reduction was again ineffectually attempted. She was admitted to the clinic October 26th, and the usual condition of complete inversion ascertained by S. and his two assistants. No attempts at reduction were made, in order to keep the case for the beginning of the lectures, November 4. In consequence of an attack of diarrhœa, the patient was not presented to the class until November 14, during which time no examination or manipulation was made. On the latter day, to the astonishment of all present, the uterus was found completely reinverted, slightly retroverted, soft, nine centimeters in length by the sound. The patient had not the least consciousness of the fact; the womb remained in place, and the patient was dismissed a week later.

Besides this case there are only nine others recorded: Leroux De la Barre, Baudelouque, Thatcher, C. D. Meigs (three cases), Rendu, and H. S. Shaw.

Spiegelberg's explanation, or rather the one given by Schatz in a communication to S., is as follows: During the horizontal position in bed, and in consequence of the diarrhœa, the uterus became less tumefied and more easily reducible; at the same time it ascended a little, and the round and broad ligaments naturally became shorter than they had been in the erect position; diarrhœa, with frequent tenesmus, supervened, thereby a strong pressure, mostly in the sitting posture, equal to one or one and a half meters of water, was exerted on and depressed the anterior and posterior vaginal wall; hereby the portio vaginalis was likewise pressed downward, the round and broad ligaments became too short for such a degree of descent of the uterus and kept the fundus uteri in nearly its former situation, and thus gradually the portio vaginalis was pushed over the fundus of the organ, fixed near the outlet of the pelvis. The total reinversion was then accomplished of its own accord or by further prolapsus.—*American Journal of Obstetrics.*

Treatment of Cancer of the Uterus by Ergot and Escharotics.

Dr. Milne, in a paper read before the Obstetrical Society of Edinburgh, claimed that the treatment of cancer of the uterus by the use of certain kinds of caustics was more satisfactory than by excision. The caustics recommended were the chloride of zinc, the nitrate of copper, and the dried sulphate of zinc; and the causes suitable were all those of encephaloid, carcinoma and epithelioma, where the cervix only was involved. One would not perform excision unless there was only a small portion of the cervix attacked by the growth, but the escharotic might be resorted to, and with benefit, when the disease was much more extensive.

As regards the mode of application of the caustics, the dried sulphate of zinc was to be first used, being applied to the cervix pretty freely through the speculum, the vagina being immediately thereafter plugged with cotton wool tipped at the uterine end with a little olive oil. This was to be applied until the slough came away, after which the cervix was to be injected with a saturated solution of nitrate of copper. This was done to attack any morbid cells

lying beyond the sore from which the slough had separated.

In reference to the function of ergot given internally in cancer, Dr. Milne observed that it had usually been administered, and with benefit, as a hemostatic; but he believed it had another effect—it led to the atrophy of the uterus. This was an original observation which he claimed to have been the first to make. If it had this effect, then its therapeutic power was greater than had been previously imagined, and could not but be viewed as of great value in uterine cancer. It was not only important to diminish the afflux of blood to the uterus, and thereby combat uterine congestion—a condition present in malignant disease—but it was no less so to induce uterine atrophy. This atrophy was natural after the change of life, at which period cancer advanced more slowly; and if we could antedate it, it would be reasonable to suppose that the progress of the dire disease would be retarded. In point of fact he had found such to be the case.

By the use of ergot and escharotics he had cured two cases of cauliflower excrescence, and in three medullary ones he had retarded the disease at least. If only a postponing of the period of dissolution was all that could be achieved, yet this result was worthy of our most devoted efforts. The great drawback in uterine cancer was the late period at which it came under professional notice. Usually the whole cervix and contiguous parts were involved, and every form of treatment was thus debarred. Let it be seen when limited to a part only of the cervix, and there was every hope that the ergot and caustic treatment would frequently cure, and often mitigate the more distressing symptoms while postponing death.—*Obstetrical Jour. Great Britain and Ireland.*

Surgical Treatment of Stricture of the Neck of the Uterus.

In April last M. Courty, of Montpellier, read a memoir before the Société de Chirurgie of Paris on the above subject.

He considers that neither slow nor rapid dilatation suffices for the permanent dilatation of the vaginal orifice of the neck of the womb, and that it is necessary to have recourse to surgical means to cure the dysmenorrhea and

sterility which occur in some cases. Meanwhile, however, it is well to begin treatment by dilatation, which, though not radical in effect, is at least preparatory.

M. Courty employs three surgical methods :—

1. Bilateral incision by the simple or double hysterotome. M. Courty, however, prefers a blunt-pointed bistoury with narrow blade and long handle. But, as the cicatrix contracts and narrows the orifice again, he only employs this procedure in cases where the mucous membrane is much folded, and therefore cannot narrow the aperture so much.

2. To prevent cicatricial retraction of the angles M. Courty places two metallic rings in the thickness of the neck, one on the right, the other on the left, like earrings in the lobule of the ear. These rings are each cut out on their side, and the result of their section is added to the normal orifice which it enlarges.

3. When the foregoing are insufficient, M. Courty resorts to autoplasty. He adopts three different procedures ; (*a*) incision of each side of the neck and suture of the internal mucous membrane with the external ; (*b*) cutting two quadrilateral flaps of mucous membrane, one before and one behind, dissecting these up, resecting the prominent part of the uterine neck and applying sutures ; and (*c*) the same procedure, but making the flaps laterally and of triangular or quadrilateral shape. In the discussion which followed, M. Despres expressed the opinion that such cases were rare. M. Blot was equally astonished at the frequency of the stricture observed by M. Courty, and asked how he treated stricture of the internal orifice. M. Verneuil asked for information as to the indications for the operation. In reply, M. Courty confined himself to the object of his present paper, reserving for some future occasion his replies to the questions.

Hemoptysis, Gallic Acid.—Dr. Holden, in the *Medica Record*, recommends a solution of gallic acid, used with the atomizer; no particular quantity of the acid is adhered to as a formula. He says it is prompt and effectual, soothing to the cought, as well as arresting the hemorrhage.

Ophthalmology and Otology.

Staphyloma. Three Cases Cured by Iridectomy.

BY GEO. H. POWERS, M. D., SAN FRANCISCO.

In May, 1868 I was called to see a little boy about four years of age, who had been suffering for weeks with ulceration of cornea in the right eye. At the time I first saw him the ulcer had gone on to perforation, herina of the iris had followed, and a rapid staphylomatous process was set up which threatened early loss of the eye by progressive thinning and bulging of its anterior portion.

About a third part of the cornea at its outer side, was thinned and pressed forward in a little tumor, and the iris was in close apposition with it. The child was suffering intense pain and photophobia, and it was impossible to determine just what amount of vision was present. I thought the prognosis bad, but concluded to try an iridectomy as the best and indeed only chance of relief. The child was etherized, and an incision made with the lance shaped iridectomy knife through the sclera at the base of the tumor through which the iris was detached from the cornea at the seat of the ulcer, drawn out and cut off.

The after treatment consisted of daily instillations of atropia and the use of a pretty firm compress bandage, and the child made an excellent recovery. I saw him a short time ago, five years after the operation, and found his vision nearly normal, no sign of staphyloma, and no disfigurement other than a balloon-shaped pupil and a small white cicatrix at the seat of the old ulcer.

CASE 2.—In November 1872, an infant only a few weeks old was brought to my house presenting almost identically the same conditions of staphyloma from perforating ulcer.

I operated upon it in the same manner as described above and with the same good results.

The parents were poor and lived some distance from the city and were obliged to return home the same day of the

operation, so that I could not watch the progress of the cure, but the mother brought the little patient to the city about ten days afterwards, and I found that the staphyloma had quite disappeared, all pain, injection and photophobia had ceased, and only the balloon-shaped pupil remained to show that any disease had existed.

CASE 3.—I have recently operated on another case which may come under the same category, though somewhat dissimilar to those given above. The patient was a boy of thirteen years, who has never been a sickly, though never a robust child. For four months past, the sight of his left eye has failed in consequence of a rapidly maturing cataract, and a staphylomatous condition has been gradually declaring itself. The whole anterior portion of the globe has commenced to protrude, though very slightly as yet, and all around the eye, at a distance of two lines from the corneal margin, a dark discoloration of the sclera shows where the process of thinning is going on. I thought it worth while to attempt the arrest of the disease by operation, and accordingly made the experiment.

The incision was made in the sclera above the cornea, with a Graefe's knife which in the puncture wounded the iris and I made the iridectomy simultaneously with the incision by carrying the knife straight *through behind* the iris to the contra-puncture. As soon as the capsule was ruptured by the curette, the lens escaped without any pressure on the cornea and brought with it the excised iris, followed by a drop of very thin vitreous. Afraid to explore further, I bandaged the eye tightly and ordered perfect stillness. Five hours afterward, on removing the bandage and raising the lid very carefully, I found the wound gaping and a large bead of vitreous protruing which I excised with curved scissors; another portion of vitreous immediately succeeded it, however, and I was obliged to close the eye and replace the bandage after making attempts at reduction of the hernia by friction on the closed lid. The next morning I was gratified to find the edges of the wound in apposition and no hernia remaining. Two

weeks have now elapsed during which the patient has had no pain or inflammation, the wound has healed smoothly, and a suspicious haziness of cornea, which has led me to fear slonghing, has nearly vanished. The artificial pupil, though made in so irregular a style is an excellent one, but I think a healthy iris could hardly be excised in such a manner. If it could, the pain caused by an iridectomy would be vastly lessoned, the two steps of the operation being united.

In the last case cited, I do not hope to restore useful vision, but do expect to prevent painful inflammation and bulging of the eye.

Spontaneous Arterial Pulse of the Retina Constituting a Recently Discovered Symptom of Basedow's Disease.

BY PROFESSOR OTTO BECKER, OF HEIDELBERG.

[Translated for the WESTERN LANCET from Wiener *Mediz. Wochenschrift* by Dr. N. J. MARTINACHE, San Francisco.]

The phenomenon known for some time in Ophthalmoscopy by the name of "arterial or venous pulse," bears an improper denomination. The so-called arterial pulse, as it is observed in glaucoma, optic neuritis, syncope, and that which is caused by pressure on the eye-ball, is simply the intermittent afflux of blood by the central artery in the retina. It is manifested by a rhythmic discoloration, followed by an injection of the arteries of the papilla, almost isochronous with the action of the heart, but a little protracted. It can be explained by the fact, that owing to the augmentation of the intra-ocular tension, to an obstacle in the circulation in the optic nerve, or to the weakness of the contractions of the heart, the blood does not penetrate into the eye-ball continuously, but only when the obstacle which prevents that penetration is momentarily overcome

by the strength of the sanguineous current. As that phenomenon really depends upon the arterial pulse and coincides with it, it has been called the arterial pulse.

This arterial pulse was first observed by Edward Jœger (Wiener *Med. Wochenschrift*, 1854, No. 3–5); Von Grœfe pointed it out as a symptom of glaucoma and explained its production by an increased tension of the eye-ball (Archiv. für Ophthalm. 1, l. p. 376); M. Donders and Von Grœfe have experimentally demonstrated the mode of production of the arterial pulse.

What has been called "venous pulse" is manifested by a rhythmic augmentation and diminution of the caliber of the central vein, which, at the same time becomes pale or injected. The discoloration is isochronous with the arterial diastole. This phenomenon is accounted for thus: During the diastole of the artery of the optic nerve and ciliary arteries, the intra-ocular tension increases greatly if at the same time a large quantity of blood does not flow out by the veins. Therefore, the venous pulse is the visible expression of the dilatation of the arteries during the diastole, a dilatation that the eye cannot recognize. The central vein is, so to speak, the indicator of a kind of sphygmograph placed in front of the arteries.

The venous pulse of the eye was first observed by M. Von Trigt (*Wederl. Lancet*, 3d series, 2d year, p. 456) and by M. Coccius (on the use of the ophthalmoscope, 1854, page 3); then described in all its details by Edward Jœger. To M. M. Coccius, Donders and Memorsky belongs the honor of having explained how it is produced.

However, M. Donders had already established (Arch. f. opthalm. l. p. 94) that a true pulse could be recognized with the ophthalmoscope, that is to say, the changes produced in the arteries by the sanguineous current, which changes may be perceived by the eye and of which one may count the frequency. "By means of this marvellous instrument one may," says he, "ascertain the dilatations that the arteries must necessarily undergo during the diastole." We must also mention a paper published by M.

Ed. Jœger in 1855 (*Beitrage zur Pathologie des Auges*) in which the author says that he observed for a long time in a glaucomatous eye the phenomenon of the arterial pulse, manifesting itself not only in the papilla, but in all the large arteries of the fundus of the eye, and even most obviously in arteries of the smallest caliber.

However, the phenomenon observed by M. Jœger cannot be confounded with the arterial pulse of the glaucoma which takes place only on the optic papilla.

This phenomenon completely agrees with that which M. H. Quincke has met with in the eye of patients affected with insufficiency of the aortic valvules (Berg. Klinische Wochenschrift, 1868, No. 34.) I have myself written a paper on those arterial pulsations produced spontaneously in a great extent of the retina, (A. F. O. xviii, 18, p. 206); I have ascertained that they appear in cases of detachment of the retina, and I have explained the conditions of their production in individual cases and in sound eyes. They take place when the central artery divides itself only at the apex of the papilla, in branches which must consequently be directed a little backwards.

The following propositions give a resumé of the actual state of the question:

The dilatation and elongation of the central artery of the optic nerve and of its branches is not as a rule recognizable by means of the ophthalmoscope. But, when the sanguineous current meets with an obstacle, at its point of exit from the optic nerve into the retina, or even in case of detachment, in passing over that membrane, such variations there may result, in the caliber and length of the retinal arteries, that they become visible by means of the ophthalmoscope.

In cases in which the insufficiency of the aortic valvules is not complicated with a high degree of anœmia, a spontaneous arterial pulse is always recognized. Here is the way to explain its production: As during the diastole of the heart, the semi-lunar valvules do not exactly close the aortic orifice, a part of the blood pushed into the aorta

returns by regurgitation into the left ventricle; the arterial systole must naturally be partly neutralized, as the blood is propelled in two opposite directions. On the other hand, however, owing to the hypertrophy of the left ventricle, the impulsive power which makes the blood penetrate into the aorta is greater than normally; as a consequence the arterial tube undergoes a dilatation and elongation more considerable.

The difference between the greatest extension and the greatest contraction becomes consequently more easily recognizable.

I ascertained some weeks ago, that an analagous phenomenon takes place in another disease accompanied with circulatory troubles. In Basedow's disease the arteries of the retina always seem to be the seat of spontaneous pulsations.

I had the occasion to examine six patients troubled with that affection.

1. H. F., 28 years of age, strong constitution, traces the invasion of her disease back to her first pregnancy, that is to say three years ago, and during which she was daily tormented by very obstinate vomitings. Since that time, her health has not been good, and while she was pregnant for the second time (she has just weaned a child ten months' old) her affection progressed considerably. The beatings of the heart are very tumultuous, and on different occasions, I counted from 120 to 140 per minute.

The thyroid gland is hard and voluminous, its vessels are pulsative and they produce a *souffle* perceptible to the ear. The exophthalmos is considerable, and the motility of the upper lid almost abolished; the vision and co-ordination of the movements of the eyeball are intact. Prof. Erb having, at my request, made a thorough examination of the heart ascertained that there was neither valvular alteration nor hypertrophy.

2. My colleague and friend Friedreich requested me to examine another patient affected with Basedow's disease.

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She is 52 years of age, and has been sick for four years. The refringent power and vision of both eyes do not present any anomaly, and the muscular equilibrium both for vision of near and distant objects is normal. The exophthalmos is much developed, the movements of the upper lid are very limited. The thyroid gland is moderately developed, the heart is troubled with palpitations and nothing else.

Notwithstanding the intensity of the disease, the ophthalmoscopic examination of the two patients could be made without any difficulty. In both cases the result of that examination was almost the same.

The media are perfectly transparent, all the details of the fundus of the eye especially the edges of the papilla, come distinctly out. There is no general hyperemia in the fundus of the eye, however, the arteries and perhaps the veins also, present a larger caliber than normally. The caliber of the arteries is not much smaller than that of the veins, though they can be easily distinguished from each other, owing to the great inequality of the diameter of the arteries. By the examination with the *right image*, it is ascertained that not only in the papilla but on a great extent of the retina, the arteries are laterally animated with rapid movements, and bend themselves in a shape of an S. In the first case, the artery was directed upwards and seemed to oscillate like a pendulum. The rhythmic augmentation and diminution of the caliber were less distinct, owing probably to the rapidity of the contractions of the heart.

In the two other cases I observed, towards the end of March of this year, in the clinic of Prof. Aelt in Vienna, the result of the ophthalmoscopic examination was less conclusive, owing to the difficulties I have met with. However, with one of the two patients, I could distinctly recognize the spontaneous pulse.

3. K. H. 37 years of age, affected with Basedow's disease for a year and a half. Moderate palpitations, pulse 104, thyroid gland developed considerable exophthalmos,

upper lid immovable. There is a myopia 1-32 and with a glass 1-10 the fundus of the eye is easily distinguished. However, the patient experiences much difficulty in keeping the eyes immovable for a few seconds. The arteries are larger than normally and in different places, their diameter is very unequal. *Pulsations* are distinctly recognized, both, on the papilla and retina.

4. W. M., 23 years of age, has been affected with Basedow's disease for a year. Pulse 136, thyroid gland developed, exophthalmos, keratis ulcerosa on the right eye. Owing probably to the affection of the cornea, the lady is very impatient, so that the examination even in the left eye is almost impossible, notwithstanding the instillation of atropine. The spontaneous pulsations can not be recognized with certainty, but the arteries do not seem to be any larger than normally.

I thought it would be highly interesting to examine also, but after recovery, the eyes of persons who had been long affected with Basedow's disease. I had an opportunity to do it in the two following cases:

5. Z. T., 43 years of age, superintendent of a railroad company, was affected with Basedow's disease from 1865 to 1870, and was treated for it by M. M. Traube, Friedreich and Knauff. In March last, M. Knauff asked me to examine his patient with the ophthalmoscope.

M. Z. T., looks much older than he is; he has gray hair and a yellowish complexion. His eyes are emmetropic, with normal visual acuteness; they are still very protruding, but the co-ordination of the movements of the upper lids is re-established. The thyroid gland is still hypertrophied, but the functions of the heart are regular; the pulse is 64.

The refracting media are transparent, but the pigment of the fundus of the eye is very much atrophied; that atrophy has perhaps taken place simultaneously with the discoloration of the hair; the disappearance and caliber of the vessels show nothing special. The veins are perhaps a little larger than normally in proportion with the arteries.

With the most attentive examination, it is not possible to discover any arterial or venous pulse. On the other hand, in both eyes the arteries of the optic nerve and retina, at their origin, are surrounded with white filaments of cellular tissue, as I observed in very old cases of aortic insufficiency.

Editorial.

Abuse of our Charities.

The degree to which abuse of our charities—especially medical charities—is carried, is becoming a burning sin, and calls loudly for correction. In no part of the world is a people to be found more generous and more anxious to care for its indigent sick than Californians, and this fact being so generally known, doubtless induces many friends abroad to send their sick dependents to this coast to become occupants of our hospital and alms-house.

The law establishing the hospital in San Francisco contemplated restricting the charity to those only who had acquired a legal residence in the city. But very soon, the authorities of other counties discovering that it would be condemned to refuse any applicant, began making regular shipments of their indigent sick to San Francisco.

If it could but be confined to such as are sent by the authorities, it might be well, for then we would know that at least, if they were not entitled, their pecuniary and physical condition rendered them deserving, but it extends to the communities of other counties and countries, and daily the officers of the Hospital or the Mayor who has the authority to admit, are called upon to receive many who are amply able to employ a physician at their own homes, but come to San Francisco for the reason that its physicians have in many instances acquired reputation

which is attractive alway to the sick. When once in the city, they learn by hook or by crook that the city maintains two large county hotels, to wit: the County Hospital and Alms House, and that they can receive every care and attention (professional) and board quite equal to the third-class hotels of the city, and all without charge. And it might be said that they will enjoy the additional privilege of abusing the Doctors, nurses, and other attendants, and if they fail in obtaining all they desire, can then fly to some of the local newspapers, that are always thirsty for sensation items, and induce them to bring about an investigation, &c., &c.

Partly with a view to relieving the plethoric wards of our hospital, the City very generously, upon the recommendation of the Faculties of the two Medical Colleges, establishd, or rather agreed to furnish, upon requisition of the Deans, such medicines, &c., as would enable them to establish, in connection with their Colleges, two Dispensaries—one at either school—thus in a measure accomplishing the end above alluded to, and at the same time, for the least possible outlay of money, distribute the greater benefits, particularly to such as have their own homes, but were without means to secure the attendance of a proper physician, and purchase their medicines. These Dispensaries have been open now some eight months, during which time (we believe we are correct), nearly two thousand cases have been treated, and upwards of four thousand prescriptions have been compounded.

We believe, also, that every precaution is exercised to prevent such as are not proper subjects of charity from receiving benefits. Yet we do know that this charity (most invaluable, as it is,) is being daily abused; that patients well-to-do are receiving aid at their hands, and that patients living in distant parts of the State, Sacramento, San Jose and elsewhere have attempted to impose themselves upon the gentlemen in charge and no doubt at times are successful.

As much as this abuse is to be condemned and discountenanced—for the reason that those who engage in it

are undeserving—there is a greater evil springing therefrom and which demands the most rigid scrutiny to detect and correct.

Every prescription that is written or compounded for this class of patients inflicts an injustice upon some professional brother and usually such as can least afford to bear it, the younger men. In the Western Addition the receipts of one gentleman alone, we are told, has fallen off, since the establishment of the new hospital in that neighborhood to the amount of two hundred dollars per month. Now, if this is the experience of one what must be the aggregate inroad that these institutions are making upon the younger members of our profession.

It is a crying evil and must be stopped, and we appeal to the President of the County Hospital as well as those who have charge of the other Dispensaries to look to it well that these impositions, first, upon the generosity of the city, the professional gentlemen in charge, and last, but by no means least, the rising generation of the profession, that are suffering in consequence, be checked at once and finally abated.

Reply to Dr. Hardy's Letter.

The *Medical and Surgical Journal* for October contains a letter from Dr. Hardy, purporting to be a reply to an editorial in the LANCET of September.

In his opening he declares our article to be "a malicious attack on the San Francisco Lying-in-Hospital and Foundling Asylum, and on himself." "The latter," he adds, "he can afford to pass in silence" as he has "similar articles heretofore," but the former he proposes to answer.

We very much regret to see that the gentleman alluded to in our article should exhibit so great a delicacy of his integumentary vestment, the more so since it may be

charged upon us that we have been instrumental in thinning it, or rendering it more sensitive by the actual cautery which last month was so sparingly applied.

Dr. Hardy answers our first charge by the assertion that "the premises extend from Jessie to Mission street, two of the cleanest streets in the city." We reiterate what we said, that for hospital purposes Jessie street is "narrow and dirty," and we now assert that when our article was penned the premises did not extend through to Mission street, and Dr. Hardy knows full well that he must have stretched his conscience until it tore (if tear it can) when he said that "the premises extend to Mission street."

His answer to our second charge is "that there is no made ground within a quarter of a mile" of the Hospital. Dr. H. evidently forgets that *we* were practicing our profession in San Francisco when he was living amongst the Kanakas in the Sandwich Islands, and that many things existed then that do not now, and that many things exist now that, thank God, did not then, and amongst these is the "Foundling Asylum." It is well known that until 1854 or perhaps later a pond containing water the whole year, and in winter to such depth at times as to make it dangerous to attempt to ford it with a horse, did exist at the corner of Third and Mission, and yet this is considerably within a quarter of a mile of the Asylum, which latter is between Third and Fourth streets.

Dr. H. answers our third charge with the proclamation that there has been no malarious disease in the institution, and that the former owner had seven children born to him and that the children are all alive and in good health. Poor old gentleman! how he squirms! Does he not know that in the swamps of Louisiana and other countries women are more prolific than on the high lands, and does he forget that this happy father of the seven children alluded to removed from the house and took with him the children, and that this fact is more damaging to the reputation of the management of the Asylum than all *we* have said, because all know that the children confided to *its* care do *not* live. How short-sighted, Doctor!

Our fifth charge, that from 13 to 16 infants are crowded in a pen or room 10 by 12 feet, said room being in a portion of the house to which the sun never until late in the day has access, our "Good Samaritan" answers by saying that never more than 10 *or* 12 children are kept in the room, and that its dimensions are 11 by 15 feet. He says nothing of the height of ceiling which we know to be not over 10 feet.

This will furnish 1650 cubic feet of air for the use of 12 pairs of lungs—exclusive of nurse—or 137½ feet for each child. What now, Dr. Hardy, have you to say of the city ordinance requiring 500 feet for every person? What now have you to say when from your own admission we prove our allegations? Why is it that in your answer you make no allusion to the fire which we charged is kept up day and night to further assist in consuming the life giving principle of the air, to wit, oxygen. Why did you not disprove our assertion that the sun never reaches the nursery of your establishment until very late in the afternoon? Why did you not disprove our assertion that there are no surrounding grounds in which to give these unfortunates an air and sun bath occasionally? Why have you left the occupancy of the building on Mission street until the eve of the sitting of the next Legislature?

Our fifth allegation, that *one nurse only* is supplied for the care of the children, is met by the announcement that there is a day nurse and a night nurse. In what way does your answer modify our assertion? You admit that there is but one nurse by day, and one by night for the care of twelve sick, crying children. Why, there is not a stable for the care of horses in the city that has not more attendance.

In our statement that the Asylum had been the recipient for five or six years of assistance from the State we may have not been strictly correct as to time but, the Doctor admits that it has been receiving State bounty for upwards of three years, during which time it has received about $5,000, and adds: "And here comes the explanation of

this outrageous attack," alluding to one of the Editors of the WESTERN LANCET as being connected with another hospital. We wish here to disabuse Dr. Hardy's mind of any such impression, as the article in the LANCET was penned by the senior Editor without the knowledge of the junior (who is the party alluded to), and to the publication of which he objected for the reason that he suspected Dr. Hardy would accuse him of its authorship. The senior attached his signature to it, and then as well as now assumes the entire responsibility, as he proposes to do with reference to everything that appears in the pages of the WESTERN LANCET while he has charge of the same.

When the offensive leader was written we were actuated by no spirit of malice, but on the contrary, as we then explained, by a desire solely to bring about reform by calling attention to the defects in the institution. Our relations with Dr. Hardy we supposed were of the most friendly character, and we now wish him no harm: but, as journalists we feel it to be a duty to point out faults in our public institutions—otherwise we would be derelict. Recognizing this duty, we intend at any sacrifice of a personal character, either to ourselves or others, to pursue this course, and we wish to assure all interested that we are not to be intimidated by any personal attacks, or driven from the line of duty by insinuations such as contained in the pretended reply of the Manager, Secretary and Physician of the Foundling Asylum, viz.: "It is gratifying to know that these 'little waifs' in this early stage of their existence were instrumental in turning such an avowed sceptic to the belief in the existence of a merciful God."

It is true we do not wear a prayer book in our hands on going to church; it is true we have not suffered from "house-maid's" knee in consequence of the constant attitude of prayer; it is true that we do not attend the meetings of the Quakers and many other religious denominations; and it is also true that we do not practice cruelty, and go to church in the hope of having our sin forgiven. No! we do none of these things; but we do believe in a merciful

God, and our faith is so firmly fixed that we are led to admonish this Christian gentleman lest that fearful retribution which is held in reserve for such as profess without practicing shall descend upon his head.

We believe that religious duty consists very largely in doing, justice and loving mercy, and these *we* practice; would to heaven we could say as much for the controlling spirit of the Foundling Asylum. So much for the personal allusion in Dr. Hardy's letter.

But we are told that the mortality amongst the children in his institution is less than in most other similar institutions in Europe, and elsewhere. This may or may not be the case; yet we insist that if the institution was removed to higher ground, with more spacious surroundings, and apartments, more pure air and sunlight and less artificial heat, the mortality would be greatly lessened upon the present rate.

When the institution was originally organized, it was brought about by a number of respectable and philanthropic ladies and gentlemen of our city, and the idea was to make it a charity to be supported by private subscription. The present site was selected and occupied, but on the sitting of the very next Legislature application was made for State aid, and being in Sacramento at the time we rendered some assistance in that direction; also being a member of the local Legislature of this city we secured a beautiful block of land and had it set apart for this or some similar institution. Later Dr. Hardy applied to us for advice with reference to securing this land for the use of his Asylum, and to make the story short, it resulted, we believe, in his acquiring it from the city.

Does this look like malice? Does our connection with the Hospital as one of its Consulting Board look as though we entertained any ill feeling towards Dr. Hardy or the institution? We think not, and now declare that even at this present moment we have none but the kindest feeling towards both; yet this does not lessen our duty in calling attention to defects and asking for their correction; this

we have done and nothing more, and this we shall continue to do until our aim is accomplished, or we in common with other tax-payers are relieved entirely of an institution which at present falls very far short of meeting the demands.

As to the mortality in other asylums, it is a question at this time being freely discussed wherever similar charities exist. Whether it is not better to discontinue Foundling Asylums altogether—and in a very exhaustive report read by Dr. Jacobi, of New York, before the State Medical Society, at its last session, this was very strongly recommended—if, as is asserted on all sides, that the mortality to foundlings in hospitals is four out of five, why, then no greater or stronger argument can be adduced in support of closing these institutions.

And now, Dr. Hardy, before closing we wish to say one more word to you in kindness; it is, that in future, be not so impulsive, but weigh the facts presented, and acquaint yourself thoroughly with the incentives which may have induced the allusion to you and your institution. Remember, in your position of Manager, Secretary and Physician, of a public institution, you are the property of the community, you are their servant, and consequently, although you may be conscientious in the discharge of your duties, yet you are liable to be questioned, and to have unsolicited advice given you, and therefore if you be faithful to the trust reposed in you, you should take it in kindness, and not consider that because you are head, front, and practically the whole institution over which you preside, seated thus upon a pinnacle, that you are too high to be reached, and therefore that you can escape when it is proper that you should be reached.

Martinache.

We would call special attention to the original article—"Actual Cautery in the treatment of an Ulcer of the Cornea. Blepharitis Marginalis of thirteen years standing

complicated with Pustule and Ulcer of the Cornea—" by Dr. N. J. Martinache of San Francisco, which appeared in the October number of the LANCET as presenting some views that are entirely new and of an extraordinary character. The application of an actual cautery to the eye when we were students would have consigned the author of even the suggestion to the Lunatic Asylum, or the operator to the State Prison for mal-practice.

The evidence, however, which Dr. Martinache furnishes, is so convincing that we hope this article will be perused with care, and consequently with interest.

Dr. Simmon's Letter.

We particularly invite the attention of our readers, to the letter of Dr. G. L. Simmons of Sacramento—dated from London; which appears under the head of "Surgery," in this number of the LANCET.

The subject treated is new, and is deserving of attention. Dr. S, is known throughout the State as a most astute member of our profession, and a close observer—this alone, gives interest to the subject of his letter.

Death of Dr. H. S. Hewitt.

The grim messenger death, seems of late to have conceived a fancy for our profession. Not a day passes but what we are called upon to notice the demise of some medical man, and weekly to record the taking away of some distinguished votary of the science.

One of the latest is Dr. Henry S. Hewitt, formerly a leading member of the profession in this city. In 1850 or 1851, Dr. H, came to this city, in the capacity of surgeon in the service of the United States.

Soon after his arrival, he engaged in the general practice of his profession, and through his genial manner and acknowledged ability, acquired in a remarkably short time a large and lucrative business; he was we believe at one time a partner of Dr. C. M. Hitchcock, well known in this city, and subsequently of Dr. S. C. Tripler, both of whom were at the time Surgeons in the army of the United States.

Dr. Hewitt, after several years of active and successful practice returned to New York, where in face of every opposition, his untiring devotion to his profession aided in no small degree by a most liberal early education, secured for him not only a leading place amongst practitioners, but amongst teachers of Surgery, to which branch of science he was particularly partial.

At the time of his death, Dr. Hewitt was Surgeon of Charity Hospital, New York, and President of the "Medical Board." *Requiescat in pace.*

THE pressure of original matter upon our pages this month is such as to necessitate the carrying of several book reviews and communications over to the December number.

Miscellaneous.

An Improvement on Esmarch's Elastic Bandage.

BY W. HARRISON CRIPPS,
House-Surgeon to St. Bartholomew's Hospital.

Esmarch's admirable suggestion of using an elastic bandage to exclude the blood before operating on limbs, and the complete success attending it, are now probably well known. The following is a simple modification of his arrangement, by which many yards of elastic bandage may

be dispensed with, and it can be easily and quickly applied.

A short india-rubber tube is used, not only to prevent the blood from returning to the limb, but also for the purpose of removing it in the first place. The two ends of an india-rubber tube, twenty-one inches in length, and about three-eighths of an inch thick, are bound together with a piece of twine, the whole forming an elastic ring seven inches in diameter. A grooved reel revolving between a double handle completes the necessary apparatus.

To apply this to the arm, three or four complete turns of the elastic ring are wound tightly round the hand in such a manner as to include the fingers and thumb, care being taken that the turns lie even and do not cross one another. The reel is then put under the free portion of the ring connecting the upper and lower coil. The reel is passed round and round the limb in an upward direction; thus each coil is unwound from below as another is added above. In this way four tight coils of india-rubber are carried up the limb to any distance required. The degree of tightness can be regulated with the greatest nicety by the distance the reel is drawn from the limb by the bandager.

This method of driving blood from the limb answers perfectly in the arm, and in the lower part of the leg; but in carrying the bandage over the popliteal space the flexor tendons prevent the artery being effectually compressed. A firm pad in the space would probably answer the purpose.

To remove the bandage, it may either be unrolled by reversing the action of the reel, or the twine connecting its two ends may be cut with scissors.

A very neat little reel in a holder may be obtained at Ferguson's, in Giltspur street.

Use of Arsenic in the Treatment of Constipation.

M. Isnard recommend arsenic in the treatment of constipation, especially in the case of females. Although any preparation of arsenic seems to answer ; M. Isnard prefers, ordinarily, arsenious acid. Three grains being dissolved in two and one-half pints of water, a coffee-spoonful will represent one *milligramme* of the acid. A medium dose is six to ten coffee-spoonfuls daily, in three doses, preferably taken at meal-time, in water or wine, and increased gradually in quantity.—*La France Méd.*, April 9.

Monthly Report of Deaths Registered in San Francisco during September, 1873.

Cause of Death.	Total.	Per Cent.	AGES. Under 5 Years.	From 5 to 20 Years.	From 20 to 50 Years.	From 50 to 70 Years.	Over 70 Years.	SEX. Male.	Female.	NATIVITY. California.	Other Parts of U. S.	China.	Other Countries.
1—Small Pox	5	....	1	1	2	1	..	3	2	2	..	1	2
Measles	..	....	..	..	..	..	..	..	..	..	..	..	..
Scarlatina	26	....	18	8	..	..	..	13	13	25	..	..	1
Diphtheria	2	....	2	..	..	..	..	1	1	2	..	..	..
Croup	3	....	2	1	..	..	..	..	3	3	..	..	..
Whooping Cough	2	....	2	..	..	..	..	1	1	2	..	..	..
Tyhus and Typhoid Fevers	8	....	..	6	2	..	..	2	6	6	1	..	1
Diarrhœa and Dysentery	6	....	5	1	..	..	..	2	4	6	..	..	..
Cholera Infantum	7	....	7	..	..	..	..	3	4	7	..	..	..
Cholera Morbus	1	....	..	..	1	..	..	1	..	..	..	..	1
Ryemia	2	....	..	..	2	..	..	2	..	..	..	..	2
Cerebro-Spinal Meningitis	1	....	1	..	..	..	..	1	..	1	..	..	1
Syphilis	1	....	..	..	1	..	..	..	1	..	..	..	.
Alcoholism	2	....	..	..	1	1	..	1	1	..	..	..	2
2—Cancer	3	....	..	..	2	2	..	1	2	..	1	..	2
Phthisis Pulmonalis	45	....	2	..	36	7	..	30	15	2	11	7	25
Hydrocephalus & Tubercular Meningitis	9	....	9	..	..	..	..	5	4	9	..	..	..
3—Encephalitis	12	....	7	2	2	1	..	6	6	9	1	..	2
Apoplexy	9	....	..	..	6	3	..	9	..	..	1	..	8
Convulsions	11	....	9	2	..	..	..	6	5	10	1	..	..
Other Diseases of the Nervous System	12	....	5	2	2	3	..	7	5	6	4	..	2
Aneurism	3	....	..	..	2	1	..	3	..	..	..	..	3
Diseases of the Heart	12	....	1	1	5	5	..	8	4	1	4	..	7
Pneumonia	11	....	4	..	3	3	1	8	3	3	1	..	7
Bronchitis	2	....	1	1	..	..	..	2	..	2	..	..	..
Other Diseases of the Respiratory Organs	7	....	2	..	3	2	..	6	1	2	1	..	4
Diseases of the Stomach and Bowels	12	....	8	1	3	..	..	8	4	9	..	..	3
Diseases of the Liver	6	....	1	..	3	1	1	4	2	1	2	..	3
Bright's Disease and Nephritis	1	....	..	..	1	..	..	1	..	..	..	..	1
4—Puerperal Diseases	2	....	..	..	2	..	..	..	2	..	..	..	2
Atrophy and Inanition	23	....	18	..	..	4	1	12	11	18	..	..	5
5—Suicides	3	....	..	..	1	2	..	..	..	..	2	..	1
Deaths in Institutions	44	....	5	1	31	7	..	31	13	6	10	1	27
Still-Births	21	....	..	..	..	..	..	16	5	..	..	..	..
1—Zymotic Diseases	70	22.72	40	17	10	3	..	33	37	56	2	1	11
2—Constitutional Diseases	60	19.48	11	1	39	9	..	38	22	11	12	8	29
3—Local Diseases	104	33.77	38	9	34	21	2	71	33	43	15	..	46
4—Developmental Diseases	33	10.71	26	..	2	4	1	19	14	25	1	..	7
5—Deaths from Violence	17	5.52	3	1	9	4	..	15	2	3	5	1	8
Deaths from Unknown Causes: Chinese	23	7.47	1	..	19	2	1	22	1	1	..	22	..
Deaths from Unknown Causes: Others	1	.33	..	..	..	1	..	..	1	..	1	..	..
Total	308		119	28	113	44	4	198	110	139	36	32	101
Per Cent. to Total Mortality		100.00	38.64	9.09	36.69	14.29	1.20	64.29	35.71	45.13	11.69	10.39	32.79

HENRY GIBBONS, Jr., M. D.,

Health Officer.

State Board of Health.

Abstract from the Reports of Deaths and their Causes in the following Cities and Towns in California, during August, 1873.

CITIES AND TOWNS.	Total No. Deaths.	PREVALENT DISEASES.						AUTHORITIES.
		Consumption.	Other Diseases of Lungs.	Dis. Stomach and Bowels.	Diphtheria.	Scarlatina.	Typho-malarial Fevers.	
San Francisco.....	294	31	14	21	3	15	14	S. F. B'd of Health.
Sacramento.....	39	5	3	2	0	1	1	Sac. B'd of Health.
Petaluma.....	2	0	0	0	0	0	1	Dr. G. W. Graves.
Dixon.....	0	0	0	0	0	0	0	Dr. A. H. Pratt.
Stockton.....	7	2	1	2	0	0	0	Stockton B'd Health
Marysville	8	1	2	2	0	0	0	Dr. C. E. Stone.
Placerville.....	3	0	0	1	0	0	0	Dr. E. A. Kunkler.
San Diego County..	2	0	1	0	0	0	0	Dr. T. C. Stockton.
Oroville.....	...	..	..	..	.	.	..	Dr. J. M. Vance.
Oakland.....	...	..	..	..	.	.	..	Dr. T. H. Pinkerton
Los Angeles.....	14	0	0	2	0	0	1	Dr. H. S. Orme.
Truckee.....	5	0	0	1	0	0	1	Dr. Wm. Curless.
St. Helena.....	0	0	0	0	0	0	0	Dr. J. S. Adams.
Napa City.....	6	0	0	2	0	0	0	Dr. M. B. Pond.
Watsonville.....	0	0	0	0	0	0	0	Dr C. E. Cleveland.
Folsom.....	2	1	1	0	0	0	0	Dr. S. Lyons.
Santa Cruz.....	1	0	0	0	0	0	0	Dr. C. L. Anderson.
Suisun, Fairfield....	2	1	0	0	0	0	1	Dr. S. D. Campbell.
Colusa.....	3	2	0	0	0	0	0	Dr. Luke Robinson.
Trinity County	2	0	0	0	0	0	1	Dr. J. C. Montague.
Santa Barbara.....	7	2	0	0	0	0	0	Dr. C. B. Bates.
Redwood City.....	0	0	0	0	0	0	0	Dr. Kirkpatrick.
San Andreas.....	1	0	0	0	0	0	0	Dr. C. B. Robertson.
Auburn.....	...	..	..	..	.	.	..	Dr. A. S. Dubois.
Tulare County.....	...	..	..	..	.	.	..	Dr. M. Baker.
Siskiyou County....	3	0	0	0	0	0	1	Dr. T. T. Cabinis.

REMARKS.—Contrary to rule and to what we had reason to expect some three months ago, the mortality of our cities and towns has decreased with the progression of the Autumnal months. From January to June the mortality steadily increased, which fact, taken in connection with the irruption of cholera in the Southeastern States, lead us to entertain serious apprehensions of its introduction here, by means of the lines of rapid travel, and to provide accordingly against it.

It is encouraging to future efforts, in this latter respect, to be able now to state that since June, the sanitary

condition of the State has been improving, and in no case has this been more clearly manifested than in San Francisco. There, for the first seven months of the present year, the average mortality was 330 per month, or 36 more than shown in our table above. At the time of the present writing, October 24th, the same proportional diminution in the mortality is observable in the returns from all our cities and towns. Doubtless this comparative immunity from disease and death is, in a great degree, attributable to the precautionary advice and other sanitary measures adopted during the early Summer months; and goes to show that had this boon of protection been taken advantage of in due time in the Southern States, their inhabitants would, in all probability have escaped the terrible scourges with which they have been and are still afflicted.

THOS. M. LOGAN, M. D.,
Permanent Secretary State Board of Health.

Book Reviews.

A MANUAL OF MIDWIFERY: INCLUDING THE PATHOLOGY OF PREGNANCY AND THE PUERPERAL STATE. By Dr. Karl Schroeder, Prof. of Midwifery, and Director of the Lying-in-Institution in the University of Erlangen. Translated by Chas. H. Carter, B. A., M. D., B. S. New York: D. Appleton & Co.; San Francisco: A. Roman & Co.

The book before us as its title denotes, is a "Manual" in every sense. It is the most comprehensive, and yet the most concise work on Obstetrics we have ever seen; written in the style so peculiar to the Germans—terse, pointed, and positive. In this latter particular the "Manual" is open to objection, and the chapter devoted to "dystocia," Chap. 2d, Part 4, so far as it relates to the operations of Craniotomy, and the Cæsarian Section is liable to mislead the student, as our Author, without sufficient discussion, in the most positive manner, declares in favor of perforation

as being superior to either Cranioclasm, or Hysterotomy. We are not astonished at his position, as the Cæsarian operation never has been a favorite with the German school, still in presenting a work, such as the one before us, the Author in justice to himself, should at least make a greater effort to prove his position sound. He has seemed either to ignore, or to be innocent of the fact that the American School as well as the English, are looking with much greater favor upon the Cæsarian section than Craniotomy.

Still, all cannot agree on any one subject, and perhaps the work of Dr. Schroeder is as free from fault as any; it certainly is a very readable and instructive book, and should meet with general sale.

A MANUAL OF MEDICAL JURISPRUDENCE. By Alfred Swain Taylor, M. D., T. R. S. Seventh American Edition. Edited by John J. Reese, M. D., Professor of Medical Jurisprudence in the University of Pennsylvania, etc., etc. Philadelphia: Henry C. Lea & Co.; San Francisco: A. Roman & Co.

Little can be added to what has been repeatedly said of this standard work of Dr. Taylor's. As a manual, it is doubtless the most comprehensive extant, meeting fully the demands of the student of medicine and law.

The opportunities extended by the author to the American Editor, viz.: of consulting the sheets of the new edition of "The Principles and Practice of Medical Jurisprudence" which is now ready for publication in London, renders the book before us a *Multum in parvo* on the subject treated, and should commend it to every student and practitioner on this Coast.

Medical Jurisprudence is a science to which too little attention has been paid by the profession, and which if more thoroughly studied would do away with the outrageous blunders daily made by quassi experts upon the stand in our courts of justice, and thus directly tend to protect the Science of Medicine against the assaults made by the "limbs of the law" in almost every case in which it becomes necessary to call for medical testimony.

THE

WESTERN LANCET:

A JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

FOR DECEMBER, 1873.

Surgery.

A Case of Acute Inflammation of a Hernial Sac. Simulating Strangulated Hernia.

[WITH REMARKS.]

BY GERRARD G. TYRRELL, L. R. C. S. I. AND K. AND Q. C. P. I., SACRAMENTO.

The following case derives its great interest from its simulation to one of strangulated hernia, and exemplifies in a striking manner the diagnostic difficulties which sometimes beset the surgeon and render nugatory all rules of practice in certain cases.

W. I., aged 17 years, after an altercation with his employer, during which, it was alleged, he had received a kick in his scrotum, mounted his horse and rode furiously home, a distance of over a mile. When he dismounted he complained of pain in his bowels; his abdomen and scrotum were swollen, and he commenced to vomit; next day he was se n by Dr. Matthews, of Tehama, who prescribed some purgative medicine, which was rejected by the

stomach. Further advice was then sought, as in Dr. Matthews' opinion, a strangulatad hernia existed and required operation. The second opinion was, that hernia not only existed, but that gangrene had ensued. Under these circumstances the boy was sent to Sacramento. The accident happened on the 22d of August, 1873, and on the 26th, or four days after the injury, he arrived here.

He was immediately seen by Dr. H. W. Nelson, of this city, who soon after called me in consultation upon the case. We found the poor boy lying upon his back in bed, constantly shifting his position, his legs stretched out one minute, drawn up the next, now on this side, then on that; his face was very dusky, and with his extremities cold and clammy; features shrunken; countenance anxious and expressive of constant suffering; his body was pungently hot, the temperature in the axilla being 104 1-5; his abdomen was tensely swollen, resisting, and most sensitive to pressure; the lower part of his scrotum was swollen and ecchymosed, as was also the perinæum upon the right side; the right testicle, occupying its usual position, was also enlarged and tender; immediately above, but distinct from it, was a tumor, apparently situated in the cord, about the size of a turkey's egg, oblong in shape, smooth in outline, without fluctuation; it was tense, elastic, irreducible, and gave no impulse on coughing, but was extremely tender, the slightest manipulation being attended with severe pain. Tracing the tumor upwards towards the ring it was found to end abruptly about an inch from the external ring into which the cord could be distinctly traced, enlarged and tender, just as found in cases of orchitis. Upon making an attempt to reduce the tumor it was noticed that in carrying it toward the ring, the testicle ascended with it, proving that whatever the enlargement was, it was intimately connected with the spermatic cord. The boy was vomiting constantly, the ejected matter being very offensive and almost fæcal in appearance; his pulse was 140, weak and thready; tongue coated with thick, yellow fur, and teeth covered with

sordes: has had no movement from the bowels since the receipt of the injury and for several days before; urinates freely and has not passed any blood per uretha. As he was now in a state bordering upon collapse we agreed to give him a grain of opium every hour; some whisky and water in small doses; apply a large warm linseed poultice covered with oiled silk over the abdomen; and administer a copious emulsion of turpentine and castor oil as an injection, and await results. At 6 P. M. the injection had produced two large fæcal stools, with abundant discharge of flatus, and great relief to the patient; his extremities were warm; his face had lost its dusky hue; and the countenance was less anxious. The vomiting was not relieved, neither was there any diminution in size, or softening of the abdomen. We again carefully examined the scrotal tumor; it was tense and painful without fluctuation and without any apparent connection with the external ring except such as it had in connection with the spermatic cord; the vas deferens was found externally and posterior to the tumor. We came to the conclusion that the tumor might possibly be an acute hemætocele of the cord, the result of direct injury, and the inflammation of the tissues surrounding it had extended along the cord to the peritonæum. Upon this hypothesis we continued the opium and ordered milk and beef tea injections into the rectum, with small pieces of ice to be kept in the mouth when thirst was urgent.

9 P. M.—Abdomen very hard, tender and tympanitic; is quieter; vomiting less frequent; has retained his injections; pulse 130; skin very hot; breathing thoracic.

27th.—Is fully under the influence of the opium; slept at intervals during the night; says he feels better; tongue very red and dry; skin very hot; extremities warm; pulse 130, weak; abdomen very tense and tender; scrotal tumor unchanged; bowels have not moved since last night; vomiting continues, but not quite so frequently. He informed me this morning that seven years ago, in Grass Valley, I attended him for strangulated hernia. Upon taxing my memory I recollected that I had attended this same boy,

and with a great deal of difficulty succeeded in returning a direct inguinal hernia on the right side, which had been produced by falling across a fence upon his abdomen. If I recollect aright, the hernia was down some six hours before I saw him.

This new feature in the case afforded some light as to the nature of the tumor. We hardly believed that a descent of the bowel could be produced by a kick upon the scrotum, but did imagine that if an old hernial sac was existent in the, or attached to, the cord, an injury at that point might set up inflammation in the sac and thence to the peritonæum. We, therefore, ordered the opium continued, added turpentine to the poultices upon the abdomen, and continued injections of beef-tea and milk.

28th.—Passed a comfortable night; countenance cheerful; face rather dusky and hot; skin very warm and dry; abdomen hard and tympanitic, but not so sensitive to pressure; tongue red and dry; pulse 120, thready; vomiting still continues; scrotal tumor softer and lessened in size; injections of milk and beef-tea rejected by rectum as soon as administered; ordered iced brandy and water in frequent but small doses.

29th.—Very restless last night, vomited constantly; vomited matter dark green and very acid; skin very hot; no sweating; pulse 120; is tossing about the bed; abdomen less tympanitic and not nearly so hard or tender on pressure; scrotal tumor diminishing; swelling in testicle subsiding; can isolate the cord completely from the external ring, and trace it downwards into the tumor; ordered, continue medicine and nourishment, and administered a large injection of turpentine and castor oil.

9 P.M.—Injection acted copiously, bringing down a large quantity of fœcal matter consistent in form; abdomen less tender and tympanitic; vomiting ceased from two o'clock; since then retained a fair quantity of stimulants and beef tea and milk; is more cheerful and has hope of recovery.

30th.—Rested well during the night, but inclined to

talk in his sleep; took some nourishment during the night with relish; this morning his face is flushed, countenance cheerful and not so anxious or expressive of pain; tongue thickly coated with white fur; pulse 96; abdomen not very tympanitic, neither is it so tender on pressure; scrotal tumor reduced to about the size of an English walnut, not tender and irreducible; feels like an encysted tumor in the cord; bowels moved once early this morning; ordered injection of turpentine and oil internally in small doses, and continue nourishment and whisky.

2 P. M.—Since taking the second dose of the emulsion, has vomited constantly; resume opium.

9 P. M.—Has vomited unceasingly dark green matter; is much prostrated; his extremities have become cold; tongue much furred, dark brown coat; belly hard and tympanitic, very tender on right side just beneath the liver; other symptoms unchanged; ordered aromatic sph. ammon and chloric ether, to allay vomiting.

31st.—Vomiting has ceased since taking aromatic mixture; restless and delirious all night; slept none; abdomen hard and tympanitic; skin very hot and dry; pulse 130; tongue coated with dark brown fur; face hippocratic and countenance wild and anxious; scrotal tumor unchanged, urinated freely; bowels unmoved; continue medicine.

2 P. M.—Is a little easier; keeps down his food; is very thirsty; no change in other symptoms.

9 P. M.—Has slept at intervals during the day; has not vomited; abdomen greatly distended, but is apparently painless upon percussion; skin hot; temperature 104; ordered ℥j doses of chloral every two hours until sleep is produced.

September 1st.—Slept well after two doses of chloral; did not vomit during the night; countenance anxious; face and extremities cold; is delirious, but capable of being roused, and answers questions intelligently; abdomen relaxed and soft; scrotal tumor small and soft.

2 P. M.—Conjunctiva injected; is muttering to himself; has subsultus tendinum; bowels moved copiously an hour

ago; motion large, dark brown in color and very offensive; abdomen soft; pulse 140.

9 P. M.—Very delirious; had a second large motion from his bowels and passed urine copiously; extremities and face cold and clammy; tongue fissured and almost black; pulse 144; very weak; takes nourishment and whisky and water freely.

2d.—Is unconscious; refuses food and drink; evidently sinking.

2 P. M.—Dead.

Post mortem eighteen hours after death by Dr. Nelson —Rigor mortis well marked; body emaciated; ecchymosis of perinæum and right side of scrotum; no other marks of injury; upon making an incision from the ensiform cartilage to the pubis, and thence across the abdomen in a line horizontal to it, down to the peritonæum, it was seen that the latter was throughout the abdomen closely adherent to the abdominal parieties and the intestines, requiring no inconsiderable force to separate them; upon doing so. the intestines were seen closely glued together by organized lymph, while a layer of it several lines in thickness, covered the bowels; this layer was of a dark, fawn color and could hardly be scraped off the intestine; when endeavoring to separate the coils of intestine, a quantity of dirty-looking, brown fluid, containing flakes of lymph, gushed out of the cavity of the pelvis; upon gently lifting the cœcum and illum from the right illiac fossa, we found that they were closely adherent thereto, and no knuckle of intestine was engaged in or passed through the abdominal rings; in the illiac fossa there was a large deposit of yellow, creamy-looking lymph, of the consistence of thick custard, and not unlike it in appearance; the under surface of the intestines were of a dark plum color, or rather mottled with that color; there was no rupture or mortification of any portion of the bowels; beneath the liver, stomach and spleen was also seen large deposits of yellow lymph, thick and adherent to the adjoining tissue; the mesentery was one mass of thickened tissue, its proper

structure being completely hidden by the lymphy deposit; upon dissecting down upon the scrotal tumor, we found its coverings so adherent from interstitial deposit, that we failed in separating them; upon isolating the thickened spermatic cord above the tumor, we found that its coverings and that of the tumor were identical, the vas deferens being behind and external to it; an incision into the tumor disclosed a sac that would probably contain a small hen egg; from it issued a quantity of the same dirty-looking fluid that was seen in the cavity of the pelvis; the interior of the sac was of a greyish color, covered with lymph and rugose in aspect; upon inserting the finger and tracing the neck upward, it was found to lie anterior and internal to the cord and opened directly into the cavity of the abdomen, through the external ring; there was no gut or omentum in the sac or ring, the opening being quite patent; there was no extravasation of blood in the scrotum, neither was there any apparent injury to the testicle.

The sequence of events in this case, as disclosed by the above pathological condition, were, I think, as follows: Injury by a blow or fall upon an old hernial sac; acute inflammation therein as a result, followed immediately by general peritonitis from continuity of structure, plastic effusion, tending to suppuration, and ending in death. The points of greatest interest presented in this case are, first, its rarity; secondly, its close simulation of strangulated hernia; thirdly, the uncertainty of signs and symptoms as a means of diagnosis; and lastly, as showing the impossibility of laying down rules for our surgical guidance, which, if followed invariably, will not lead us into error.

Mr. Paget, in his recent lectures upon Hernia, reported in the *British Medical Journal*, 1872, for instance, says: "If the remote and general signs of hernia are present and the hernia cannot be reduced, you **must* operate; or if there be a swelling which *may be* a hernia, though it seem not likely to be a strangulated hernia, the operation must be performed at the seat of swelling." Again, he says: "One

— * NOTE—Italics are mine.

or more actions of the bowels, after symptoms of strangulation have set in, are of no weight against the propriety of operating." Even frequent and regular action is not an absolute prohibition, as strangulation may involve only omentum, or only a part of the circumference of a portion of the intestine. Again: "The sign we should most rely on as *commanding operation is vomiting*. The rule is *safe* that recent irreducibility and vomiting are enough to justify the operation, even though there be no other signs of strangulation present. *Any kind of vomiting*, if it be repeated, is enough to justify operation in a hernia recently become irreducible." Now the case here related presented all the signs and symptoms of acute strangulated hernia. The boy was suddenly seized with pain in his scrotum, radiating into his belly; apparently had colic and was treated with purgatives therefor. When Dr. Matthews saw him the day after, he found a swelling in the boy's scrotum, which was tense and painful; his bowels were unmoved; he had high fever and constitutional disturbance; he was *vomiting* and in constant pain. Dr. M. proposed, according to the rules of surgery, to operate. His counsel thought gangrene had supervened, and an operation was useless. This was only the third day after the injury, so that the symptoms must have been very urgent. On the day following, being still worse, he came under my care, in conjunction with Dr. Nelson; and certainly he presented all the well known symptoms of hernia together with those of peritonitis. The tumor was there, the vomiting persisted, and the bowels were tympanitic and without action. We did not operate, although the rules laid down by the distinguished surgeon above quoted would almost seem to compel us to that course. How came we to doubt the propriety of the course that seemed so plain? We did so for these reasons: In the first place, the boy declared, that since I returned the hernia seven years ago, he had no protusion whatever, and had no tumor in his groin or scrotum, until after he received the injury of the 22d of August. This, then,

tended to prove that the former hernia was protruded through a small opening as a result of direct pressure upon the abdomen; that upon its return the sac remained and that the opening was too small to again permit the descent of the bowel. Upon this hypothesis, therefore, the probabilities were in favor of an inflamed hernial sac, resulting from direct injury to it, or to the scrotum. Again: upon manipulating the tumor it was found that the cord could be isolated above it, and traced into the inguinal canal. I do not think that this could have been accomplished had there been omentum or intestine in the sac, as either would have formed a tumor quite up to the ring, or into the inguinal canal. Again: the testicle could be distinctly felt directly below the tumor in the cord, and not behind it. And lastly, I could not conceive, if the history of the case was true, how a kick upon the perinæum and scrotum could have produced a hernial descent of the bowel. The case might have been one of acute hæmatocele of the cord; but the absence of ecchymosis over the seat of the tumor, and its elastic tensity, together with the history of previous hernia, induced us to abandon this idea. Its rapid formation and acute symptoms forbade the supposition of either a hydrocele or an adipose tumor of the cord. Therefore, by a process of exclusion we formed the opinion that we had to deal with an inflamed hernial sac, and treated it accordingly. The case teaches us how fallacious may be the signs of strangulated hernia, and how carefully we should weigh every fact in each case before we render judgment, that it is one demanding immediate operation.

New Means of Dilatation in Stricture of the Urethra.

It simply consists in the employment of a column of liquid about twenty metres high, established by means of a funnel, and containing about a pound and a half of water (boiled at 25 or 27 deg. C.), and suspended above the

patient's bed. An India-rubber tube (about two metres long), and provided with a cock in the middle of its length (so as to moderate or suspend the current of water), and having, at its end, a small glass pipe like an ordinary syringe, which is to be introduced into the meatus urinarius, connects the aparatus with the penis. The glass end being introduced, the cock is more or less opened at will, and slight pressure is exerted on the glans, to prevent the water from running outside. The water in the funnel is then forced down by its own weight, and runs down drop by drop, dilating the stricture without pain, and, through its local and antiphlogistic action, rendering the urethra pervious to sounds and bougies. The patient can himself apply the aparatus three or four times a day, and when it is removed the surgeon has only to make use of his sounds or bougies.—*Lancet*, August 2, 1873.

Treatment of Malignant Pustule in Portugal.

Dr. Belles, practicing in the districts of Beja and Faro, where malignant pustule is very frequent, in consequence of the number of cattle raised there, says he has treated hundreds of cases of this affection without having noted a single death, no matter how advanced the case was at the time of operating. The treatment employed by Dr. Belles consists in crucial incision of the boil throughout its whole extent, in depth as well as breadth, and cauterization with chloride of antimony, repeated until bleeding ceases. The gangrenous tissue is completely insensible to both cutting and cauterization.

When the operative measures have been postponed until extensive disorganization of the tissues has occurred, the separation of the eschar is retarded by a local atony, which the author counteracts by means of poultices of meal and tapioca cooked in wine.—*Gazette Medicale de Paris.*

FISTULA IN ANO.—Dr. Hute employs an ethereal solution of iodine in fistula in ano, which is more exciting than the tincture. Patients are not obliged to keep their beds. He has had several cures after one injection.—*Medical and Surgical Reporter.*

Institutes and Practice of Medicine.

On Chloral in Therapeutics.

BY DR. A. GUBLER.

[Translated for the WESTERN LANCET, from *Jour. de Pharm. et de Chimie*, September, 1873, by JOHN CALVERT, Esq., San Francisco.]

[Concluded from last Number.]

6th. *Chloral in Tetanus.*

The initiative of its use in tetanus belongs to my learned friend Professor Verneuil, whose first experiment was crowned with success. Many other surgeons after him obtained satisfactory results, whilst others have failed. For my part, I did not succeed in the two cases in which I administered it. In fact, it has not kept the promises it seemed to make on its introduction. But it is far from being useless if one may judge from the known facts and the statistics of Beck in 36 cases, of which 21 were cured against 15 deaths. To conclude affections in which the convulsive element dominates we will mention two other morbid conditions in which it has been said to be useful.

7th. *In strangulated hernia.*

Mr. Verneuil has used it without other effect than that of soothing the hiccup, whilst Dr. Caro, having effected the reduction, after chloroform and tobacco had failed, proclaims the magical virtues of chloral.

It also appears to have given good results in *incontinence of urine* (W. Thomson, Bradbury) and in *spermatorrhœa* (Bradbury, Williéme and Davreux), doubtless, I think, by moderating the sensibility of the organs and the reflex actions which it brings into play.

8th. *Chloral as a hypnotic.*

Chloral evidently acts in this way in a great number of cases of insanity, characterized by exaltation, loquacious or furious delirium and suicidal or homicidal monomania. Its soothing effect often renders constraining measures

superfluous (Jastrowitz). Sometimes, however, it seems to be powerless (Hanley, Elliott) and R. Munroe regrets its frequent abuse.

Chloral is formally contra-indicated in mental affections accompanied by cerebral depression, debility, and more especially when the circulation is languid and nutrition defective (Hawkes). It is, on the contrary, specially indicated in acute, agitated and violent forms, and notably in acute delirium, in hysterical and puerperal mania, and in alcoholic delirium. I have satisfied myself of its efficacy in many analogous cases, but have seen it succeed most frequently in delirium tremens. In this respect my observations are perfectly in accord with those of my colleagues, Messrs. Panas and Siredey, and those of Dr. Morax, of Lausanne. In alcoholic delirium chloral equals opium in power and surpasses it in rapidity of action. I frequently associate the two substances for the purpose of hastening and prolonging sleep. Chloral is useful in fevers for producing sleep, which is also its principal property in chronic bronchitis and phthisis pulmonalis (Henry Mund, Gubler); it may also be useful in pulmonary affections, in general to soothe the pain in the side, or to abolish the spasmodic condition which is an essential element of asthma.

9th. *Doses and modes of administration.*

Chloral is given in somewhat large doses.

The medium dose is about half a drachm, divided into two parts, one of which can be given half-hourly to obtain sleep. Some persons, however, find fifteen grains sufficient, and I have encountered two or three adults for whom the weak dose of 7½ grains was enough. The latter is the usual hypnotic dose for children.

In severe cases of neurosis and in some other circumstances much larger quantities will be found necessary. 1½ drachms, 2 drachms and 2½ drachms have been given progressively in the 24 hours. I have never exceeded 2½ drachms, even in tetanus.

Chloral is generally given by the mouth in mixture or

in the form of syrup, each tablespoonful of the latter containing 15 grains. Mr. Limousin prepares capsules containing solid chloral, which would be very convenient if they had not the disadvantage of producing a very considerable irritation of the mucous membrane at the point of contact when the envelope is ruptured. It is also administered by clyster in doses of 15 to 30 grains in 4 or six ounces of water. An aqueous solution of chloral of different strengths is used topically.

The powder of anhydrous chloral (Dujardin, Beaumetz and Hirne) is employed to modify solutions of continuity which are in a state of putrefaction.

In the above I have only given attention to the *hydrate of chloral* commonly employed, and which I have simply called chloral. But there is another compound discovered by M. Z. Roussin and analyzed by M. Personne, the *alcoholate of chloral.* This interesting compound has not yet been submitted to a regular study, although it seems to be distinguished by a number of qualities which I have only been able to partially investigate by reason of the difficulty of obtaining it.

The odor of the alcoholate is milder than that of its congener, and its taste appears to me to be more agreeable. It possesses the same pharmacodynamic action (Duhomme Gubler) and is of about the same strength. On one occasion I saw it succeed better than the hydrate. Our eminent and regretted colleague, Blache, gave it in preference to the hydrate for allaying vesicle pains depending on the presence of a calculus. Although this fact is an isolated one it has an exceptional value from the great competence of the observer, and recommends the alcoholate of chloral to the attention of physicians.

SPECIALTIES.—Dr. Robert Barnes says, "I have recently been honored by a visit from a lady of typical modern intelligence, who consulted me about a fibroid tumor of the uterus; and lest I should stray beyond my business,

she was careful to tell me that Dr. Brown-Sequard had charge of her nervous system; that Dr. Williams attended to her lungs; that her abdominal organs were intrusted to Sir William Gull; that Mr. Spencer Wells looked after her rectum; and that Dr. Walshe had her heart. If some adventurous doctor should determine to start a new specialty, and open an institution for the treatment of diseases of the umbilicus—the only organ which, as my colleague, Mr. Simon, says is unappropriated—I think that I can promise him more than one patient."—*London Lancet.*

On the Pathology and Diagnosis of Acute Bright's Disease.

BY DR. GEORGE JOHNSON, F. R. S.
Physician to King's College Hospital.

While Acute Bright's disease is usually associated with a more or less copious epithelial desquamation, there may be no desquamation of renal epethelium, and either no tube-casts or only small hyaline casts in the urine; while in other cases, either with or without epithelial casts, there may be casts crowded with small exudation-cells. The appearances which I have described are sharply defined in some cases, while in others they gradually merge into each other. Epithelial casts and desquamation may be abundant or entirely absent, or present in moderate amount. The casts with exudation cells may be numerous and unassociated with epithelial casts, or the two forms of tube-casts may be combined with and replace each other in variable proportions. It is certainly interesting, and, I think, of some practical importance, to note these different appearances in the urine.

In all the cases of acute Bright's disease to which I have hitherto referred, although the microscopical appearances in the urine are various, the general symptoms and the physical and chemical characters of the secretion are alike, and in particular the presence of a large amount of albumen is a constant phenomenon. Now, I have to tell you that we sometimes, though rarely, meet with cases of acute

general dropsy in which the urine, although scanty, contains not a trace of albumen. In the great majority of cases acute Bright's disease and acute albuminuria are synonymous terms; but in these few exeptional cases the latter term is inapplicable, for the urine is not albuminous. Dr. Blackall described two cases of acute general dropsy after scarlet fever, in which the urine was not coagulable either by heat or by nitric, or, as he calls it, "nitrous" acid (*op. cit.*, p. 12 to 21.) Dr. Roberts gives the history of two cases after scarlet fever, both fatal—one acute, the other chronic (On Urinary and Renal Diseases pp. 24 and 400.) Dr. Basham has reported the case of an adult in whom general dropsy followed exposure to wet and cold. He recovered (*Lancet*, August 1867.) And I have notes of four cases that have come under my own observation. Three of these cases recovered, and the fourth was improving when he was lost sight of. In two of my cases the dropsy followed scarlet fever, and in the other two it was, probably a result of exposure to cold. In two of the cases neither albumen nor tube-casts could be discovered throughout; in one a trace of albumen was found on one occasion; and in the fourth, after general dropsy had existed for six weeks without albumen or tube-casts, a trace of albumen and some hyaline casts appeared.

Now what is the explanation of these rare, remarkable, and exceptional cases? I have neither seen nor heard of any satisfactory explanation of them, and I am not prepared to give you one; but I venture upon one or two suggestions and queries. There is reason to believe that suppressed action of the skin is a powerful concurring cause of the dropsy which is associated with albuminuria; and this, perhaps, is the explanation of the frequent association of dropsy with the renal disease which results from scarlet fever or from exposure to cold and wet. In both these classes of cases the functions of the skin must obviously be more or less impaired—in the one by the specific inflammation, and in the other by cold; whereas diphtheritic albuminuria, without implication of the skin in the morbid process, rarely, if ever, gives rise to general dropsy. Then the question arises, Is it possible that suppression of the cutaneous secretion may alone cause acute general dropsy without the implication of the kidneys? May acute general dropsy result from a metastasis of the perspiration from the skin to the areolar tissue and the serous membranes? And may the scanty secretion of urine in these exceptional cases, be a result of the morbid transfer

of water to the tissues where the dropsical effusion takes place, as, by a reversed action, the perspiration is checked and the skin of a diabetic patient rendered dry by the copious flux of liquid through the kidneys? I am not prepared to answer these questions. In most cases of acute dropsy without albuminuria the urine has been scanty and high colored. In one of Dr. Roberts's cases the urine was scanty almost to suppression, only two drachms having been voided in twenty-four hours; "it contained casts, but not a trace of albumen." The form of tube-casts is not mentioned. The total quantity of urine voided during the last seven days of life amounted to between six and seven ounces. No autopsy was permitted. In the second case the urine contained neither albumen nor casts, but it was scanty and high colored; and, death having occurred after an illness of five months, "the kidneys were found to be good examples of the smooth white Bright's kidney." In this case it would seem that, although there was no albuminuria, there was some structural change in the kidneys. Dr. Wilks has published in the sixth volume of the Pathological Transactions, a remarkable case of general dropsy, with a peculiar form of renal disease, but without albuminuria, in a woman aged 35. The urine passed amounted to about twelve ounces in the day, of specific gravity 1012, and not albuminous. A few days before death the urine became less in quantity, and for the last four days none was obtained. The kidneys were pale and large, their combined weight being seventeen ounces. The cortical portion was seen by the naked eye, to be scattered over with small round dots like grains of sand. On a microscopic examination these were found to be the Malpighian bodies, the capillaries of which were covered over with mulberry-like masses of oil-globules, while the tubes were healthy.

It may hereafter happen to some of you to have the opportunity of throwing additional light upon the pathology of these rare and exceptional cases of general dropsy not dependent on heart-disease and unassociated with albuminuria.

We have seen that the chief varieties and modifications of acute Bright's disease with albuminuria, are the following:—1, with epithelial desquamation (desquamative nephritis;) 2, without desquamation, either with or without small hyaline casts; 3, with exudation-cell casts, either with or without epithelial casts and desquamation. Lastly, we have, as an entirely distinct class of cases, rare, excep-

tional, and obscure in their pathology, acute Bright's disease, or at any rate acute general and febrile dropsy, without albuminuria.

Changes in the Blood.—The effect of acute Bright's disease is not only to cause an admixture of blood-constituents with the urine, but also to bring about a large accumulation of urinary materials in the blood. While the urine is usually more or less bloody, the blood becomes in a greater or less degree urinous. Dr. Christison was the first to announce the fact that the blood in these cases contains a large amount of urea and that urea is found in the dropsical and inflammatory effusions (*Edinburgh Medical and Surgical Journal*, October, 1829.) Not only is the blood altered by an accumulation of urinary materials, but also by a loss of its own normal constituents. The density of the serum is reduced from 1030 or 1031, to 1022 or even 1020. The loss of density is greatest when the urine has been most albuminous; and it is probably explained by the escape of serum through the kidneys. The hæmoglobin or coloring matter also diminishes rapidly, the normal proportion being 1,335 in 10,000. Dr. Christison found it reduced, after a few weeks' illness, as low as 955 in one case, in another to 564; and in a young man ill for three months and a half subsequent to scarlet fever, who had never been bled before, it was only 427. At the commencement of the disease the loss of coloring matter is less rapid than the extreme pallor of the patient would seem to indicate; and it is probable that the blanched appearances of the skin is partly occasioned by the quantity of water in the subcutaneous tissue.

Etiology.—Acute Bright's disease may occur at all ages from infancy to extreme old age. The two most frequent causes of acute Bright's disease with dropsy are exposure to wet and cold and scarlet fever. Either of these causes is alone sufficient to excite the disease; but their combined action—exposure to cold during the progress of scarlet fever—is a most powerful determining cause of the malady. Diphtheria is a frequent cause of albuminuria; but, as I have before said, diphtheric albuminuria is rarely associated with dropsy. Amongst the less frequent causes of acute albuminuria are measles, erysipelas, pyæmia, the absorption of poisonous materials from the uterus after parturition, rheumatic fever, the malarious poison, typhus and typhoid fever, cholera, and, lastly, excessive eating and drinking, more especially when combined with dyspepsia. In the majority of cases acute albuminuria, resulting from

other causes than scarlet fever and exposure to cold, is unassociated with dropsy, and its history belongs to that of the disease with which it is associated as a complication. We shall find hereafter that albuminuria resulting from one or other of the various causes here alluded to sometimes leads to a chronic and incurable degeneration of the kidney. Excess of alcohol is a more frequent cause of chronic than of acute Bright's disease. A remarkable case of transient alcoholic albuminuria occurred when Dr. Baxter was house-physician to our hospital. A man between twenty and thirty years of age was brought in one night by the police. He was unconscious, and breathing stertorously. He was believed to be drunk, and a large quantity of vinous liquor was pumped out of his stomach. The unconsciousness remained, uræmia was suspected, and some urine drawn off with the catheter was "loaded with albumen." He was put into bed, cupped over the loins, and a purgative given. When Dr. Baxter visited the ward in the morning he found the man sitting up and clamoring for his discharge. He said he had been very drunk over night, but now he had nothing the matter with him. He passed some urine, which was found of normal color and specific gravity, and without a trace of albumen. He then left the hospital in triumph. The temporary albuminuria was the result of renal congestion while the excess of alcohol was being excreted by the kidneys.

Diagnosis.—In most cases of acute Bright's disease the symptoms are so obvious, that the disease can scarcely be overlooked or mistaken for any other. The only case in which there is a possibility of acute albuminuria being unrecognized are those in which it is unassociated with dropsy. But, the existence of albuminuria being discovered, it is not always easy to determine whether this is the result of a recent acute attack, or of a chronic degeneration of the kidney. We shall be in a better position to discuss this important practical question after we have studied the various forms of chronic Bright's disease. Meanwhile, however, I may tell you that, as a rule, high-colored, smoky and blood-tinged urine, of high specific gravity, is an indication of a recent acute attack; and equally so is a copious sediment composed of epithelial and blood-casts, or of exudation-cell casts, alone or mixed with epithelial casts. The appearance of oily casts and cells, in combination with numerous epithelial casts, does not materially affect the diagnosis. On the other hand, urine of low specific gravity and very pale in color, yet highly

albuminous, is usually evidence of chronic disease; and this evidence is strengthened by the appearance of numerous oily casts and cells unassociated with epithelial or exudation-cell casts. Large hyaline casts in *pale* highly albuminous urine point to disease not only chronic, but in an advanced stage. We shall return to the subject, and discuss it more fully in a future lecture.

Prognosis.—Acute Bright's disease has a tendency to terminate in complete recovery. It is essentially a curable disease, as much so as acute bronchitis or acute pneumonia. The earlier the patient comes under treatment the better is his prospect of recovery; and, on the other hand, the longer the symptoms have continued without signs of amendment, the more grave does the prognosis become. The prognosis is, on the whole, more favorable in the young and middle-aged than in those more advanced in years; but the disease may prove mild and tractable even in very aged persons. For obvious reasons, the prospect of recovery is better in the case of those who can avoid exposure to cold and other injurious influences, than when the patients' circumstances are less favorable.

In favorable cases a copious secretion of urine, of comparatively low specific gravity and of paler color, with a diminishing amount of albumen and decrease of dropsy, are amongst the earliest signs of amendment. Albuminuria is usually the last symptom to disappear. The time of its disappearance varies, in different cases of recovery, from a few days to many months. If the urine continues albuminous for more than six months, it becomes more and more doubtful whether it will ever cease to be so; but I have seen cases of complete recovery after albuminuria had continued for one two, and even three years. So long as the urine continues albuminous, in however slight a degree, although the dropsy and other symptoms may have passed away, recovery must be considered incomplete. Acute Bright's disease, although, as a rule, a curable one, is not unfrequently a fatal disease. There are some symptoms and complications which indicate a case of more than ordinary peril; such as a very scanty secretion of highly albuminous urine; frequent and distressing vomiting; great anasarca, with a tendency to erysipelatous inflammation of the skin; dropsical effusion within the chest, either in the pleura or the pericardium, or both, with urgent dyspnœa; inflammation of the lung, or pleura, or pericardium, or endocardium; severe and persistent headache, which is apt to be followed by convulsions and by coma, with a

brown and dry tongue. All these are symptoms of grave, though not always of fatal import. When the renal disease is acute, and therefore essentially curable, recovery sometimes occurs after the most formidable symptoms of uræmic poisoning have been present.

A consideration of the exciting causes of the renal disease forms an element in the prognostic indications. When Bright's disease results from some inherent constitutional defect, without obvious exciting cause, it is generally more intractable than when it is directly due to exposure to cold or to the influence of some specific blood-poison, as, for instance, that of scarlet fever or erysipelas. To all general rules of this kind there are exceptions, and each case requires a separate and careful study.

Let me impress upon you one point of practical importance. Before you pronounce a patient to be entirely free from his malady, be careful to test the urine, not only after rest and fasting—*i. e.*, in the morning before breakfast—but after food and exercise. Albuminous urine is usually more copiously so after food and exercise; and you will sometimes find that, while the urine before breakfast is quite free from albumen, that which is secreted after a meal is decidedly and even copiously albuminous. In some cases exercise has even more influence than food in exciting renal congestion and albuminuria.

An attack of Acute Bright's disease confers no immunity from future attacks; on the contrary the disease may occur more than once in the same subject, a result of either inexplicable predisposition, or of a liability resulting from a first attack. I think my experience warrants the statement that when acute albuminuria has resulted from some non-specific cause, such as exposure to cold and wet, or excessive eating and drinking, it is more likely to recur than when it has been excited by a specific morbid poison, such as that of scarlet fever, which, as a rule, does not occur a second time in the same individual; but I have known patients so unfortunate as to have two attacks of scarlet fever, and each attack complicated with albuminuria.—*British Medical Journal—Braithwaite's Retrospect.*

ERGOT IN DYSENTERY.—M. Luton, of Rheims, *Gazette Hebdomedal*, October, 1871, states that during an epidemic of dysentery the ergot of rye was prescribed successfully after the partial failure of other remedies generally used.

The ergot appeared not only to act on the hemorrhagic element of dysentery, but the whole disease; and the mucous secretions, the griping colic and fever were equally relieved at the very commencement of the treatment.

Ergot in the Treatment of Nervous Diseases.

Dr. Daniel Kitchen, Assistant Physician to the New York State Lunatic Asylum, makes, in the July number of the *American Journal of Insanity*, an interesting report of the action of ergot in certain nervous affections. He used the fluid extract prepared by Squibb, and the aqueous extract, or ergotine, made by Merck, of Vienna. The dose of the former is from one to two drachms; the latter from six to ten grains. One drachm of the alcoholic extract of Squibb's preparation is equal to about six grains of the ergotine. He also used a few ounces of a solid extract, made by Squibb, which is about equal in strength to imported ergotine. The full physiological effect of ergot will last from one-half to three quarters of an hour:

"There is probably no condition so annoying to the patient as headache, and certainly it is the most common. In the following forms we have used ergotine with much benefit and comfort to the patient: 1. Headache, depending on plethora or fullness of blood; 2. Headache from anæmia; 3. Headache, depending on changes in brain substance and the membranes; 4. Epileptic headaches; 5. Migraine; 6. Headache depending on disordered menstruation. The most common form of headache is the first, or that depending on a plethoric condition of the blood-vessels of the brain. Of course we cannot estimate correctly the amount of pain endured at each sickness, but it depends largely upon the constitutional character and nervous susceptibility of the patient. In plethoric headaches the course is either very short (a few hours at most) or they last for some days. The pain is usually referable to the back of the head, and there is much throbbing of the temporal arteries. In this class of headaches we have used ergotine largely; about one hundred patients have been prescribed for, and in almost every instance relief was given in less than half an hour, and the attack thoroughly cut short.

"In headache from an anæmic condition of the brain the blood-vessels are usually lax, and as a consequence there is a slowness of the circulation. Ergotine contracts the blood-vessels, thereby giving tone to the arterial system; the blood is forced more quickly and regularly through the brain, and of course in greater quantity. Our cases of cerebral anæmia are comparatively few, and experiments are therefore limited; yet in those cases where we have had an opportunity of using it happy results have followed. In epileptic headaches and in epilepsy we have used ergot largely. In *petit mal* there are muscular twitchings, congestions of the face, suffusion of the eyes, and a rush of blood to the head. We have in many of these cases been able to ward off the *grand mal* by large doses of ergotine. We have often combined it with conium, and it seems in this combination to work even more satisfactorily than alone, which is chiefly due, we suppose, to the sedative effect of the conium. In migraine or sick headache, we have distended blood-vessels pressing on the opthalmic division of the fifth nerve, thereby causing the pain; and if we accept this theory, then ergotine, by contracting the blood-vessels, will relieve the headache. In headaches depending upon some disordered condition of menstruation we usually have a fullness or congestion of the cerebral vessels; sometimes, however, it may occur from anæmia of the brain. In both forms the use of ergotine is beneficial."

Dr. K. concludes his paper with the following statements:

"1. Benefit of combination with bromide of potassium in epilepsy; 2. It is apt to produce cramps and pain in the stomach, which are remedied by combination with conium; 3. in nervous diseases it soothes all renal irritation and catarrh of the bladder; 4. It dilates the pupil sufficiently to be noticed; 5. Increases both frequency and tension of the pulse; 6. Has no appreciable effect on the heat of the body; 7. In large doses it produces the same effect as conium, by inducing sleep; 8. Its beneficial action in delirium tremens, after bromide of potassium has failed; 9. It combines readily in form of pill with sulphate of quinine; 10. It is a cerebral sedative; 11. Ergotine possesses an advantage over the alcoholic extract in not producing any pain or cramp in the stomach, and is given in smaller quantity; 12. Ergot is not likely to be adulterated, and we always secure an appreciable effect after its administration."

Siredey and Cordier on the Treatment of Anasarca, Ascites, and Obstinate Pleuritic Effusions by Milk.

MM. Sirédey and Cordier (*Journal de Medicine et de Chir. Prat.*), have used this old and rather favorite remedy against dropsies in a way which they consider renders it less troublesome and repugnant than the "milk-cure" is otherwise apt to be. At the same time that Sirédey prescribes two pints of milk a day to his patients, he allows other kinds of food and drink. Cordier, in his thesis, cites cases of albuminuric dropsy in which the diuresis was rapid and considerable, and the dropsy disappeared under this treatment. The diet is otherwise moderate, including meat and a little water. He does not give more than two or two and a half pints of milk, at convenient intervals, in the day. He prefers asses' milk.—*Medical Times.*

Gynecology and Diseases of Children.

Remarkable Case of Pregnancy and Delivery Without Rupture of the Hymen.

BY R. BEVERLY COLE, PROFESSOR OBSTETRICS AND CLINICAL DISEASES OF WOMEN, UNIVERSITY OF CALIFORNIA.

The case to which we invite attention is reported more from its rare occurrence than from any instruction to be derived from it.

M. H., aged 24 years, was taken in the morning, at about 6 o'clock, with severe pain about the loins and lower part of the abdomen, which continued at intervals until 9 o'clock, when I was sent for. On reaching the house, the patient being a stranger to me, the usual questions were asked, and as she presented the peculiar form of a pregnant woman well advanced, my questions were directed accordingly. The patient, however, persistently denied that she was or could be pregnant. Her statement was that she had been married, but that upon the same day of

her marriage her husband (without knowing her as such), had gone to sea—he being a captain of a vessel—and that he had not since returned. She also insisted that she had been regular in her catamenia, and that it was utterly impossible for her to be in the condition I suspected. She, however, promptly consented to an examination, and seemed to be in no wise obstinate, except as to her avowal "that it was impossible for her to be pregnant."

On examination, after inspecting the abdominal tumor, we encountered at or within the vulva, the hymen unruptured, and presenting a thick, semi-cartilaginous margin, with an orifice barely sufficient to admit of the passage of the finger—indeed, some difficulty was experienced in forcing the finger through it, and which occasioned considerable pain. On reaching the os-uteri however, we discovered that it was patulous and dilated to the size of a two-bit piece, through which the head of a fœtus and its position could easily be distinguished.

We therefore charged her with having told us an untruth, but she persisted in saying that although her husband had *attempted* to cohabit with her, yet he had entirely failed in entering the vagina, and for this reason she had never suspected herself to be *enciente*, particularly as she had been regular, and had suffered in no degree from the usual sick stomach or "morning sickness" of pregnancy.

We assured her of her condition, and immediately her friends were sent for, and such preparations made for the event as time admitted of. Three hours later we called again; the pains were now such as characterize the second stage of labor, and we found on examination the head had engaged at the superior strait and was descending rapidly. We concluded to remain with her until the conclusion of the case: but a few minutes elapsed before we found that the head was at the inferior strait with a very marked perineal tumor presenting.

The next pain pushed forward the tumor and vulva, but made no impression upon the hymen. We felt it was of

the first importance to support the perinæum, and direct the advancing head in accordance with the "curve of carus." Each pain was now more severe and they were becoming double, yet no dilatation of the vulva was perceptible, and whilst we were admonishing the patient against using any exertion (fearing a laceration of the perinæum) another most violent pain was inaugurated, and the head, in spite of every effort of ours, was forced through the perinæum, carrying with it a loop of the funis, and without lacerating in the slightest degree the posterior commissure of the vulva anteriorly, or the sphincter ani posteriorly; immediately followed the shoulders and body, and after separating the child in the usual manner, we concluded to deliver as is our practice in all cases, the placenta. The hand was introduced through the laceration in the perinæum, carried to the cavity of the uterus, the placenta seized and delivered through the accidental opening.

The after conduct of the case was the same as is usual under ordinary circumstances. The lacerated opening in the perinæum contracted so that in three hours after, when we examined her, it was not larger than would be necessary to admit the finger, and at the usual time of getting up it had diminished until it was no larger than a goose quill, and is now not nearly so large. We have repeatedly urged her to have the slight fistulous opening closed by operative procedure, but she has always declined. No subsequent pregnancy has occurred, and she is an example of a woman who is a mother and yet retains all the (at one time considered) necessary evidences of virginity.

Remarks.—The rapidity with which the pains followed each other and their violence rendered it impossible to relinquish the support of the perinæum, in order to divide the cartilaginous margin of the hymen, and in my judgment it is doubtful, had we resorted to the use of the bistory, if the os externum would have dilated sufficiently to permit the head to pass, and its passage would unquestionably have lacerated the posterior commissure, destroy-

ing the support which the perinæum affords the uterus, and rendered the life of the patient one of misery.

A Large Ovarian Tumor.

BY DR. LEWIS A. PADDOCK, NORWICH, CONN.

Mrs. B., a widow, aged 45, a hard-working housekeeper, of steady habits, first came under my professional care during August, 1863. At that time a fibrous tumor of the uterus was diagnosed, which the patient informed me had been in existence many years, and had been once treated by Dr. B. F. Barker (now professor) several years previous to this date. She was seen occasionally during 1863–4, and again during July, August and September, 1867. During 1868–9 I also made occasional visits.

I cannot recall the exact character of her complaints during these many years, but recollect well a troublesome cough and a diseased throat, also indigestion and neuralgia, as part of the demand for medical services. I think it was during 1869 that she was greatly troubled with uterine hemorrhage. The removal of a small polypus projecting from the os uteri effectually and permanently controlled. There was an interval now of three years in my attendance. It was during this time that an alarming hœmatemesis occurred, for which another physician was called and continued in attendance until her convalescence. Subsequent to this she suffered from general debility for a long time, but at last regained fair health.

During April, 1872, I was again called to this case, and have attended constantly since. I cannot tell when this last disease began ; but at this date (1872) the distention of the abdomen had become so great as to be a cause of constant annoyance and suffering. She complained of difficulty in evacuating the bowels and scanty secretion of urine. Nausea and pyrosis added greatly to her sufferings, and she received hardly sufficient nourishment for the maintenance of life. Percussion of the abdomen gave a dull flat sound on the right side, from the pelvis to the liver, indicating the presence of some solid body. Near the left groin, and extending obliquely upward, was

another small space of dullness. The remainder of the abdomen was filled with fluctuating fluid. As she gained nothing by treatment, and her condition became worse, tapping was proposed; but the proposition was not received favorably, and her condition remained with but little change until the night of June 20th, 1872, when she was taken suddenly with expectoration of a frothy greenish fluid, which continued very freely several hours, adding to the general prostration. Regarding the case as almost hopeless at this date, unless temporary relief could be afforded by paracentesis, and doubting her ability to endure even this, I asked for counsel. Two of our best physicians meeting with me regarded the patient too near her end, and in no condition for an operation; a palliative treatment was continued. Her sufferings increasing, and it being evident that life could not continue as it was, on July 26th, 1872, I ventured the first tapping. Only a small quantity of fluid escaped (probably not over two quarts), yet it afforded some relief. I repeated the operation August 5th, with the same results. For these operations I had selected as near the usual place as the solid would permit, but evidently punctured very small sacs. I operated again August 14th, selecting at this time and afterwards any convenient spot to the left of the median line, and generally above the umbilicus. This operation afforded the discharge of about thirty pints of straw-colored fluid. I could now trace very distinctly the outlines of some large solid body on the right, while deep in the abdomen the enlarged uterus could be felt. The operation afforded great relief, and the patient soon became able to walk into an adjoining room, and was shortly after removed to her own house, more than a mile distant. Necessity for relief demanded similar operations on October 17th, 1872, January 19th. 1873, March 31st, May 12th, June 13th, July 11th, and July 18th, which was the last. Although in some of the operations the patient suffered from faintness, yet she generally rallied well, and her life was rendered much more comfortable. The quantity of fluid withdrawn at these different dates varied from two and a half to three and a half gallons. On one occasion the fluid was very thick, so as to pass very slowly through the instrument, and the quantity evacuated was small. The aggregate amount withdrawn at these ten operations would probably be about one barrel. During the last two weeks of her life Mrs. B. suffered from dysentery. She died on the morning of August 15th, aged 55 years.

Post-mortem examination, assisted by Dr. C., of this city, six hours after death. Great emaciation of the body, and enormous abdominal distension. Dullness on percussion of the entire right side, extending about two inches beyond the umbilicus. In the left pelvic region dullness over a space six inches or more in diameter. Fluctuation very perceptible in every other part as high as the ribs.

Upon abdominal section we found a sac of fluid occupying the entire abdomen and pressing the diaphragm some distance above the nipple on each side. This was free from peritoneal adhesion, the attachment of the sac being at the left ovary. Having ligated this and freeing it at this point, the entire mass was removed unbroken. Leaving this for a few moments in a medium-sized wash-tub, into which it had been carefully rolled, we examined the remaining organs.

In the left pelvic region lay the uterus, about the size and form of an ordinary quart cup. This we also removed. The cervix presented a normal appearance; the cavity and walls of the uterus were filled with fibrous tumors. Having removed the five largest of these we found their aggregate weight to be one and three-fourths pounds. We distinctly felt and counted fourteen of various sizes remaining in the uterine walls. The right ovary contained two small cysts with about a drachm of fluid. The right kidney was about twice the normal size and much diseased; the left normal, except somewhat congested. The liver was pale, resembling a fatty liver. By the great upward pressure the functions of the heart and lungs had been much embarrassed during life. Both lungs showed pleurithic adhesions, not very firm; the right cavities of the heart were dilated, but no apparent valvular disease.

Returning now to the ovarian tumor, we found the weight of the tub and its contents to be sixty-four pounds; deducting eight pounds (the weight of the tub) we learn that our poor suffering patient had carried a burden of fifty-six pounds, and probably the same for more than a year, except when temporarily relieved by tapping. The external appearance of this sac was very peculiar. There was a plainly marked, nearly vertical septum dividing it, on the left of which was a sac of thin walls containing about three gallons of fluid; while on the right the walls were thick and firm, making an elastic solid. Above this apparently solid mass, but all enclosed in one and the same membrane, was another sac of fluid containing about a gallon. Upon opening the semi-solid, we found an innumerable number

of cysts of all sizes, and varying greatly in the character of their contents. In some the fluid was of a claret color; in another like pus in appearance and consistence; others furnished shreds of coagulated lymph. We punctured this mass, and discharged the greater part of the fluid, after which the weight of the sac was eight pounds.

In reviewing this interesting case, and with the knowledge revealed by the autopsy, the question may arise, why was not this case relieved by ovariotomy? In the opinion of two of our best physicians of this city, and of Dr. A. Halleck, of Brooklyn, L. I., each of whom saw the patient with me, no operation was practicable. All agreed as to the diseased ovary and uterus; but the marked dullness, together with the fluctuation, and the former not being changed by the evacuation of the fluid, rendered the diagnosis of the disease doubtful. At the time of the consultation, more than a year ago, we endeavored to introduce a speculum and a sound, but were unsuccessful; and a digital examination failed to give us any information, as the vagina was constricted, and the cervix entirely beyond reach. Our best and only course seemed to be palliative, and to smooth the patient's pathway to the grave.

Treatment of Sore Nipples.

Dr. Fordyce Barker, in a recent clinical lecture on this subject says:—

With regard to the treatment of sore nipples, the following are the rules which chiefly govern me in the management of these cases: If the nipple is inflamed, apply a poultice until the inflammation is subdued, and then apply a solution of nitrate of lead in glycerine, ten grains to the ounce. This is also the most complete and perfect prophylactic against the occurrence of sore nipple that I know of. This solution should be applied immediately after nursing, having first washed the nipple perfectly clean.

The application must also be washed off every time before the child nurses. It is almost a specific, when properly used, against excoriations and ulcerations. If the tendency is quite strong to sore nipples, the solution may be used of the strength of 15 grs. to the ounce, or even ℥j; but as a rule the ten gr. solution is sufficient. Next, where the cuticle is denuded, and we have a raw surface,

or it becomes so irritated that there is a tendency to an abrasion, the indication is to form an artificial cuticle, which will entirely protect the parts, and yet permit the milk to pass through it.

For this purpose collodion has been extensively used. The objection to the collodion is this, that it contracts as it dries, and thus itself becomes a source of superficial irritation and discomfort, and does not readily permit the flow of the milk. I have used for this purpose, and with the most satisfactory results, the compound tincture of benzoin. Wipe the nipple dry after the child has nursed, and with a camel's hair brush apply four or five coats of this tincture.

The first application may produce some burning, but when once applied this will be entirely overlooked, and the woman will desire its reapplication. This forms a most excellent artificial cuticle, and at the same time permits the flow of milk without obstruction. Cicatrization will take place under this coating, and the patient will thank you for the benefit received. When the fissure is at the base of the nipple, very small it may be, but accompanied by the most severe and agonizing pain, the most satisfactory method of management is to touch the fissure with a fine point of nitrate of silver, and apply over this the comp. tincture of benzoin as before.

When the inflammation and ulceration have gone on to such an extent as to destroy the surface of the nipple, and there is danger of the inflammation extending back to the mammary gland, do not allow your patient to torture herself by allowing the child to nurse. Remove the child entirely, and empty the breasts by the breast-pump or by rubbing.

I then use as an application in these cases the following:

R. Rose ointment..... ℥j.
Carb. magnesia..... ℈j.
Calomel.....gr. xxx.
M.

These ingredients should be rubbed together very carefully, and it should be freshly prepared, perhaps every twenty-four or thirty-six hours. If the child is permitted to nurse at all, it should be done entirely through an artificial shield, and the best shield is one made of the cow's teat. The objection to the India-rubber shields, is that there is an offensive odor emitted from them, and they are very apt to make the child's mouth sore.

If, however, it becomes necessary to use the shields, which are in the market, in selecting them get a broad

base, what is called the L shaped glass, in the same manner as in the selection of the breast pump. The ordinary nipple-shields seen in the stores are simply abominable.—*Medical News and Library.*

Latent Gonorrhœa in the Female Sex.

Last year Dr. Emil Noeggerath, of New York, wrote an elaborate paper, which was published in Bonn, and in which he endeavored to show that "certain diseased phenomena in the female organs which have hitherto been considered as separate and treated independently possess a common basis, from which they, collectively and separately, take their origin—this being nothing more nor less than gonorrhœa." He undertook to prove that, with very few exceptions, the wives of such husbands as have at any time of life contracted gonorrhœa not only suffer as a consequence from such serious affections as acute, chronic, or recurrent perimetritis, oöphoritis, catarrh of the genital passages, etc., which he believes to be practically incurable, but that they are also, as a rule sterile, or if they do become pregnant they either abort or bear only one child.

Dr. Noeggerath states that cases of uterine and connected disease are therapeutically divisible into two classes, the one series of cases being readily cured, the other proving excessively persistent, and that the intractable cases are really made so in consequence of the husbands of these patients having at some period of their lives, probably long before marriage, suffered from gonorrhœa. He holds, moreover, that, though time diminishes the intensity of the infection, yet gonorrhœa in the male as well as in the female continues to exist for the whole of life, in spite of apparent cure, and that there exists a latent gonorrhœa in both sexes which may evoke in a hitherto healthy individual either its own symptoms or those of an acute gonorrhœa. Dr. Angus Macdonald summarizes this essay as above, and details seven cases occurring in his own practice which bear upon the subject, concluding from them that "it is sufficiently evident that gonorrhœa in a merely subacute, if not even in an exceedingly chronic and apparently cured—*i. e.* latent—form in the husband, and one which, in the female, produces symptoms merely of a slight leucorrhœa, differing in general appearance little if

at all from ordinary leucorrhœa, may prove a complication fraught with extreme danger to the female, and, in the puerperal stage, one likely to lead to a dangerous and even fatal form of puerperal fever." He believes, however, that Dr. Noeggerath exaggerates somewhat the extent of the influence of gonorrhœa, and that he is mistaken in regarding it as an incurable disease, but thinks that we ought to be a very great deal more guarded in giving our permission of marriage to young men who have within a short period contracted a gonorrhœa or who suffer from a gleety discharge, as he considers it proved to a demonstration that "if a man marry with the slightest shade of a gleet he exposes his wife to the possible risk of great misery throughout her menstrual life, as well as to great risk of death in case she becomes pregnant."

In diagnosing the gonorrhœal form of leucorrhœa, the following points are of great importance. The discharge is yellowish-colored, as if mixed with pus; non-transparent as it flows from the cervix uteri, which is usually surrounded with a deep-red erosion some lines in width; the uterus is tender, more particularly in its lower part; the vulvo-vaginal glands are enlarged; the vulva is sensitive, and there is an inflammatory catarrh of the glands of Bertholini. It is also the rule to see "on separating the labia minora from the remains of the hymen, between the first and the under lateral caruncula myrtiformis, an intensely red point, covered over with glossy mucus, from which, as a centre, a red streak, constantly becoming fainter, stretches upwards and outwards, and, gradually becoming pale, passes over into the color of the surrounding mucous membrane." Inflammation of the urethra at an early stage of the disease is of great value, but it soon passes away; in addition we usually have chronic vaginitis and vaginismus. —*Edinburgh Medical Journal*, June, 1873.

Sick Headaches.

Dr. R. H. McKay, of Tennessee, writes us: For the benefit of Drs. Anstie, Wilks and others, who suffer with headache, I ask you to publish the following formula, the efficacy of which I have tested time and again: ℞. Granulated muriate of ammonia, one teaspoonful; morphiæ acet., gr. j.; water, ℥. ss. Sig. Dose for an adult, two teaspoonsful every ten minutes (precisely) till relief is obtained.—*Medical and Surgical Reporter*.

Ophthalmology and Otology.

Case in Ophthalmic Practice.

BY GEORGE H. POWERS, M. D., SAN FRANCISCO.

W. F., aged 19, received a violent blow upon his left eye on the afternoon of August 30th. The projectile was a rough stick of wood thrown from some direction in his rear, and he, by suddenly turning, received the blow upon the cornea, the eye lids being fully open; there were one or two very slight abrasions upon the cheek and left side of the nose, but no swelling or discoloration at any place.

The cornea was cut across horizontally at the lower edge of the proper pupil, and when he came to my office, one and a half hours after the accident, this wound was open, the eye ball completely collapsed, the iris torn but without hemorrhage, the pupil full of lenticular fragments, and a long thread of vitreous protruding upon the cheek. The collapse was so complete that the cornea lay in wrinkled folds, and to all appearance, the entire contents of the eye had escaped. There was no pain of consequence at this time, but the blow had knocked down and stunned the young man so that he had not known how he was hurt.

I applied a strong solution of atropia, hoping that it might be absorbed sufficiently to cause some effect upon the iris after the aqueous should be re-established, and applied a tight pressure bandage, enjoining absolute stillness in bed in the supine position. An opiate was given at night, the patient forbidden to speak, and only a liquid diet allowed.

Eighteen hours after I first saw him I found the wound in apposition, the eye ball full as the other, the anterior chamber clear, a very moderate amount of injection, and no pain.

From this time on there was no special change worthy of note, and in three weeks the patient was allowed to go about.

The pupil is occluded by false membrane, but there is good perception of light and shadows, even to the counting of fingers, and I intend after some time to make an artificial pupil by tearing the iris at a central point with two needles introduced at opposite sides of the cornea and separated after puncturing the iris.

It is very rare that an eye receives such an extensive injury and loss of contents as this without hemorrhage and subsequent suppurative inflammation, and the recovery of any visual power was as unexpected as it was gratifying to the patient.

Spontaneous Arterial Pulse of the Retina Constituting a Recently Discovered Symptom of Basedow's Disease.

BY PROFESSOR OTTO BECKER, OF HEIDELBERG.

[Translated for the WESTERN LANCET from Wiener *Mediz. Wochenschrift* by Dr. N. J. MARTINACHE, San Francisco.]

[Continued from last Number.]

6. L. G., a lady 50 years of age, married, living in Heidelberg, had three years ago presented for several months all the symptoms of Basedow's disease. At my request, Professor V. Dusch advised her to let me examine her eyes (March 19th, 1873).

The patient is of small stature; her health is very good; her spirits rather exalted; something strange in her look only denotes in her physiognomy the disease with which she is affected. Though the thyroid gland is still voluminous and the palpitations of the heart have not completely ceased, they from time to time reappear by fits, accompanied with violent headaches; the vision is normal; the transparent media and the fundus of the eye do not present anything special. The veins and arteries are very much distended; no beating in the veins, but the spontaneous

pulse of the arteries is easily recognized. The ophthalmoscopic phenomena are then the same as in the best characterized cases of Basedow's disease.

Therefore, in four cases, the spontaneous pulse of the arteries was obviously perceptible; but in the last one, all the symptoms of the disease were not so evident. There was no pulse in the fourth and fifth cases; however, in the fourth one, the ophthalmoscopic examination was very difficult, and in the fifth, if the exophthalmos still existed, on the other hand, the troubles of the circulatory system had long since disappeared.

By this fact only it can be concluded that the cause of the spontaneous manifestation of the arterial pulsations in the retina depends upon the paralysis of the vaso-motor nerves and cardiac palpitations. It is known that small arteries arising from the ramifications of the carotid, not normally perceptible by the sight or finger, become visible and are very often sinuous and pulsatory in Basedow's disease.

There is no doubt that this condition depends upon the paralysis of the muscular tunic of the vessels and excessive energy of the cardiac contractions. The blood is pushed from the heart into the arteries with a more considerable strength; whence it results that in order to admit the blood, the caliber of the vessels must not only be larger, but that the vascular walls must oppose less resistance to the circulation. Therefore, during the systole of the heart, the arteries are more distended, and they subside, like the veins, during the diastole.

It being admitted that the paralysis of the vaso-motor nerves is not limited only to the ramifications of the external carotid, in which it has been demonstrated, both clinically and experimentally, by the section of the sympathetic, but is extended also to the domain of the internal carotid, it follows that the vessels of the eye are in the same conditions as those of the thyroid gland, and that they must show the pulsations of the sanguineous current.

It is known that both symptomatic groups essential to Basedow's disease, the thermo-vascular symptoms and the

oculo-pupillar, can be experimentally produced, on the one hand, by the section of the sympathetic in the neck, and on the other, by the irritation of the central extremity of that nerve.

Now, if one should examine the eyes of a white rabbit, on which the section of the cervical portion of the sympathetic has been performed on one side, one is astonished not to find in the choroidea and retina any hyperemia similar to that of the ear. However, I believe I noticed that the small vessels were a little distended. I could also perceive slight throbbings at the entrance of the posterior ciliary arteries. These two phenomena do not correspond, however, with those observed in well characterized cases of Basedow's disease. In this respect, my observations perfectly agree with those of other ophthalmologists (Hippel and Grünhagen, Adamük).

Therefore, it cannot be concluded that the vaso-motor nerves, which are distributed to the system of the internal carotid, do not proceed from the sympathetic. But owing to the fact that in Basedow's disease, all the symptoms are not always equally developed, and by the circumstance that in our fourth and fifth cases, other morbid phenomena, characteristic of this affection, existed with the absence of retinal pulsations, the observations I have made on a white rabbit acquire a great importance.

I believe I am justified in concluding that ophthalmoscopic examination affords us a means of recognizing the intensity of the pathogenic process of Basedow's disease. One might think, however, that the reason why the retinal pulsations are deficient should be attributed to the absence of the palpitations of the heart after the section of the sympathetic. But the same cause should produce like results in the vessels of the ear.

We then believe ourselves to be right, when we say that the paralysis of the muscular tunic of the vessels accomplishes the principal part in the production of the spontaneous pulse of the retina, but that nevertheless the exaggeration of the contractions of the heart co-operates to

that effect as an auxiliary agent. The paralysis of the vaso-motor nerves first involves the widening of the caliber of the vessels. The small arteries acquire a caliber equal to that of the arteries nearer to the center of the circulatory system. The walls become also softer, more flaccid, and are more similar to the walls of the veins of an eye, with a normal innervation. As their walls oppose less resistance to the sanguineous current, they become distended by it both in width and length.

Let us add, however, that the arterial walls lose neither their tonicity nor elasticity. Owing to the latter one, they collapse during the cardiac diastole, just as in the physiological condition. What still favors this sinking of the arterial walls is the intra-ocular pressure, which is increased at that time.

For all these reasons, the difference between the maximum and minimum of extension of the arteries, both in length and width, is more considerable in Basedow's disease than in the normal state, and will be consequently more distinct.

I must still make a remark, which is not without interest for the understanding of the fundamental cause of Basedow's disease, that is to say, of the paralysis of the vaso-motor nerves; I mean the inequality of diameter that the retinal arteries present in their traject. No other known symptom shows so clearly that the paralysis, and consequently, also, the development of Basedow's disease, may be observed at different stages. But this does not explain the modifications undergone by the afferent vessels of the eye. We must yet examine the influence that the exophthalmos may exert on the retinal circulation. The protrusion of the eye produces a tension of the optic nerve, and the sinuosities of the artery consequently disappear. It follows that the blood has less resistance to overcome to penetrate into the retinal arteries, and that it penetrates there with a greater strength. It might be, then, that the exophthalmos would also have its part in the manifestation of the arterial pulse of the retina, but our fourth case forces us to still leave that in suspense.

It is to be noticed that all the ophthalmologists who have written on Basedow's disease, since the ophthalmoscope has been introduced in the practice, have neglected to mention the augmentation of the caliber and the spontaneous pulse of the arteries of the retina.

Von Græfe (A. f. O. III, 2, p. 292,) says in that respect: A peculiarity must be noticed: in general, the veins of the retina are larger and more sinuous than normally.

M. Stellwag (*Wr. Med. Jar.* 1869, p. 27,) relates in his work on Basedow's Disease, three cases he has observed. In the description of the second, he does not make any mention of the ophthalmoscopic examination; in the third, this examination was simply negative. In fine, in respect to the first, he says, page 30: "The ophthalmoscope did not enable me to discover anything special; with the inverted image, the vessels of the papilla seem to be a little larger, but this augmentation of caliber might be attributed to the hypermetropy of the patient."

M. Emert relates twenty cases of Basedow's disease, and says of the alterations recognizable with the ophthalmoscope but these few words: "In several cases I saw very large veins near very thin arteries." (A. F. O. XVII, 1, p. 219.)

But now that attention is drawn to the spontaneous pulse of the retina, in Basedow's disease, it is to be hoped that this symptom will be more carefully studied. However, I must notice that a very attentive examination, with the right image, is the only way to well distinguish the pulsations of the retinal arteries.

How to Deprive Iodine of its Stain.

Add a few drops of phenic acid to the tincture, and it will not stain; morecver, the tincture is more efficacious, and its action more certain. M. Bogs recommends the followiug formula for use in injections: Alcoholic tincture of iodine, three grm.; phenic acid, six drops; glycerine, thirty grm.; distilled water, one hundred and fifty grm. This preparation is superior to all others in the treatment of blenorrhagia and leucorrhœa.—*France Medica e.*

Editorial.

Abortion.

The Health Officer, in his report just issued, uses the following language under the head of "still-births:"

"The records of the Health Office present no facts with reference to still-births except the number and sex."

"Quite a number of permits for burial have been granted for *fetuses* from *four to eight months old*, premature delivery, having resulted from various causes," but in the large majority of cases the birth had not been premature. A large proportion of the cases were *reported by midwives.*

We hold that this announcement should alarm the community and induce its officers to investigate facts as to the cause of the large number referred to of births at from four to eight months. It is a fact universally conceded by every one who has had any observation, that abortion is practiced in our midst to an alarming extent, and all admit that something should be done to stop it and bring the offenders to justice. Unfortunately, however, many of these cases occur amongst the better classes, and are so covered as to elude attention; and we have every reason to suspect that many prominent and leading physicians play a part in them that makes them a "*particeps criminis.*"

Occasionally a case amongst the lower or middle stratum of society comes to light through the death, under suspicious circumstances, of the woman, and the eagerness of some one either to create a sensation or exact blackmail, and the wretch who (as has recently occurred in Oregon), has thus been guilty of this double murder, is arraigned before our courts and public opinion, and all exclaim—"Hang him! hang him!" Yet, how few receive their just deserts. Why, it is the exception for a conviction to be obtained, and a thing scarcely heard of in this State for the culprit to be sent to the Penitentiary. How many examples of this kind have we had within a few years?

They have, however, been amongst the advertisings quacks as a rule, and in a month have been forgotten by both community and profession.

But the health officer says, "A large proportion of the cases were reported by mid-wives." Here comes an illustration which clearly demonstrates the defect of the health law—for one of its provisions is, that the signature of a mid-wife, practically and legally, shall have the same force as that of a regularly educated physician. Hence these hags, by whatever specific name known, whether it be spiritualist, fortune teller, astrologer, mid-wife or doctress, ply a lucrative trade in this matter of infanticide, and in their chariots may be seen daily, rolling through our streets, laughing with scorn at the law and its administrators.

But the evil, as we have already intimated, is not, we are sorry to say, confined to these two classes. It extends, we have reason to suspect, to some of the "purest and best" of the regular profession; some who, if accused, would turn their eyes heavenward, cross their hands upon their breasts, and protest their innocence; some who pride themselves upon occupying prominent positions in the community, in the profession and in the church; some, who ride in their elegant equipages, and are leading spirits in various associations; some who are loudest in their denunciation of the practice of abortionists, and some who, if a less shining light in the profession were accused, would in order to conceal their own shame, be foremost to condemn him without a trial and kick him when convicted.

So long as this state of things exists in the regular profession, so long will it encourage the charlatan and sorceress, and so long will scales remain upon the eyes of justice, and laws upon our statute books prove a dead letter.

When this very class—to whom the community have a right to look for good citizenship and protection, whose intelligence and education should imbue them with the sanctity of their calling—forget themselves so far as, for

either filthy lucre, or other inducement, to lend themselves to this diabolical practice, we have no hope of putting a stop to criminal abortion, or of having justice properly meted out.

We are distinctly of the opinion that the profession, as represented in our various medical societies, should take some steps that shall have for their object the rooting out of this evil, and we can think of no better means at the present than to cause every medical man who is admitted to membership to take the Hippocratic, or some similar oath. The profession owe it to themselves and to the community in which they may live, that this practice of abortion be arrested. View it from any standpoint you may, whether from a religious, legal, humanitarian or political economy, it is wrong, and we have faith that if the medical journals of the country would with more persistence hammer at this matter, they would arouse the attention of good and loyal men, and with their aid, be instrumental in bringing to justice "those who live in high places" first, which would strike such terror to those who now can and doubtless do say that "if such and such men do these things with impunity, why cannot I?"—that but little time will elapse till a check, at least, shall be put upon criminal abortion.

Belladonna in Scarlatina.

An old adage has it that "it is an evil wind that blows no one any good," and this seems to be exemplified in the present epidemic of scarlatina. We find the papers of the day devoting much space to the recommendations or advice of Homeopathists, to use Belladonna as a prophylactic; these notices or rather gratuitous advertisements, appear over the signature of the author, or are furnished by the local editors as the result of consultation with some M. D. who has had an extensive practice, (or more likely would wish to have.)

The truth is that Belladonna was used as a prophylactic by the profession of medicine, many years before Hahnemann or his theory was dreamed of, and by them if not laid aside, considered after ample experiment, to fall far short of accomplishing what was ascribed to it.

It is a well known fact, that a large proportion of those who are exposed to the contagion never contract the disease, and therefore because an individual may have taken Belladonna and escapes, we have no proof that they would have taken the disease had they not taken the Belladonna.

We have however evidence that in many cases in which Belladonna has been administered, the individual contracts the disease, and this is positive proof therefore that the medicine failed to protect the patient. Yet as the public mind has been educated to have faith, and as "faith is said to remove mountains," and especially as no great harm can accrue to the individual by the taking of Belladonna, there can be no great objection to it.

When used, we prefer the formula of Flint, viz:

"Dissolve one to three grains of Ext. Belladonna in an ounce of cinnamon water, adding a few drops of alcohol to prevent fermentation. Of this solution may be given two or three times a day, one drop for each year of the child's age, to be administered for two weeks, or longer if the danger should continue."

Health Officer's Report.

We are in receipt of the Annual Report of the Health Officer, which we think it but just to say is one of the ablest productions that has ever emanated from that important office.

The manner in which every subject has been presented deserves the highest praise, for it is not only comprehensive but concise, and the tables furnished are and will be in years to come invaluable.

The enormous mortality recorded from zymotic diseases is particularly noticeable and is partially explained in the remarks on "Sewers and Private Cess-pools," viz: the existence of cess-pools and the foul water which is to be found in the gutters and vacant lots in almost every part of the city. The suggestions as to sewerage are good, and we believe with the author that "the winds" of San Francisco "*are* our salvation."

There is another cause, however, of zymotic diseases to which allusion has not been made in the report and which we believe to be more prolific than either of those referred to, to wit: the non-observance of the ordinance which is spread (we believe) on the records of the Board of Supervisors making it a misdemeanor for any owner or builder of a house to build or have built a house or tenement in which the drain pipes used are unprovided with efficient traps.

We know from ample observation and experience that a large percentage of the smaller houses, and not a few of the better class in this city, are without these traps, and not few are the zymotic cases that can be directly traced to this cause.

Some time since we were called to two sisters, living west of Powell street, each suffering from the most aggravated symptoms of poisoning. We were led to suspect the nature of the poison, and on examining the sink in the kitchen where they passed much of their time we were almost stifled by the emanations from the drain pipe, which was on inspection found to be without traps and communicating with the sewer in the street, thus constituting a chimney through which the foul air was sucked up and admitted to the house of this family. When the owner was requested by us to see to it, he declined and did not act until threatened by the law.

We have no hesitation in saying that this cause of zymotic disease is more common and constant than any to which the Health Officer has referred, (not, however, detracting from the importance of those mentioned.) We

would be glad if Dr. Gibbons would inquire into the matter of the existence of such a law as we have referred to, and if we are in error take such steps through the Board of Health as will secure the early passage of such a one.

The subject of "Still-births" we do not think has received that attention from the Doctor which its importance demands and we hope in future he may bestow more time upon. With this exception we are frank to say, that the report is decidedly creditable and should be carefully perused by all who feel an interest in the sanitary condition of the city.

Professor Lewis Rogers.

We have received a visit within the past few days from a distinguished member of the profession—Dr. Lewis Rogers, of Louisville, Kentucky—a gentleman whose name is perfectly familiar to every resident of the State whence he comes, and known to all who feel an interest in medical education throughout the country. Dr. R. was a Professor for many years in the University of Louisville, and was the colleague of Gross (now of Philadelphia), Caldwell, Yarndell, and others equally well known. He is a gentleman of great culture and charming manners, and to use the language of Professor S. D. Gross' letter to us introducing him, "Kentucky could not send a more worthy type of a man or of a physician to California than in the person of my friend."

Compliment to Medical Department University of California.

During the recent visit to this city of Robert Rogers, M.D., Professor of Chemistry in the University of Pennsylvania, on business connected with the Mint, having been sent out by the Government, he visited the Medical Department of the University of California, and honored us with his presence during our lecture, after which he voluntarily addressed

the class, and took occasion to allude, in very complimentary terms, to the perfection of the arrangements of the buildings and facilities offered students for acquiring a thorough knowledge of their profession, saying that the college in which they were students offered as great inducements and facilities as any in the country, and closed by congratulating them upon the efficiency of their teachers and completeness of the curriculum pursued.

Miscellaneous.

HYGIENE.

Water-Tanks on the Tops of Houses.

BY ARTHUR B. STOUT, M. D., MEMBER STATE BOARD OF HEALTH.

The water supply of San Francisco is derived chiefly from the Spring Valley Water Company's works. A few other sources exist; certain it is that others should be devised. This water is introduced into houses in two different modes.

1st. By direct communication with the main pipes to the emission faucets in the houses. This method supplies the water under the entire pressure from the head of the reservoir. The pressure in many parts of the town is far too great for the convenience of consumers. Accordingly another mode of introduction is resorted to.

2d. In order to moderate the force of the stream, tanks are built on the tops of the houses, which receive the water from the street mains, and the water is thence conducted through the houses by the usual pipes. To regulate the supply in the tanks, and prevent overflow, a spherical copper vessel floats upon the water and connects with a stop-cock in the water-pipe. When the tank is full the float rises, turns the valve and shuts off the supply

of water. And again as the water is withdrawn from the tank, the float descends and allows the valve to open. This ingenious apparatus serves a good purpose; but it has the great disadvantage in a hygienic point of view, —that in interrupting the free and constant flow of fresh water from the mains, it creates a little lake of stagnant water on every house top where it is employed. The water is detained in the tank by not being steadily drawn out and is exposed to the rays of the sun for indefinite periods of time, and all the organic operations of vegetable and animal germination, and decomposition have the same opportunity to occur as in stagnant pools. Months, sometimes years, elapse and no thought is given to clean and sanify the tanks. These remarks are equally applicable to those larger tanks in the Mission plain, which are elevated in the air and filled from wells by the aid of windmills. In these latter, the water often remains for a long while, for the owners are induced to economize the water in order to maintain their supply, when during the summer season there is often quite a length of time in which the wind does not blow strongly enough to work the windmill.

It not unfrequently happens that these house top tanks are inaccessible, except at considerable trouble and expense, and are not supplied with covers. House-keepers, who otherwise would be careful, are consequently deterred from taking the proper precautions to sanify their tanks. Persons unacquainted with these facts, and finding the water impure, would be disposed to inculpate the reservoirs of the Spring Valley Water Company; when in truth the noxious swamp is on the roof of their own houses.

The question of the purity of water, and strictly careful analyses of the varied ingredients which the analytic chemist can detect, are from time to time urged upon the public, doubtfully appreciative of the scientific skill displayed; but let any house-keeper, not too lazy to take the trouble, enter a search into the contents of the tank on his house roof; let him collect a bottle full of its *soil*, and put

one drop of it under a proper microscope and then pronounce—having seen it with his own eyes—upon the *soup* which he drinks.

Many observers know that these house top tanks are the birthplace of mosquitoes, like any other swamps, only on a smaller scale. and that their offspring migrate into the apartments below them; that various devices of window screens and mosquito nets are resorted to, and that one house will be infested while adjacent ones will be exempt, —and yet the hint of the mosquito, truly piquant, fails to awake them to the quality of their beverage.

The water when first drawn from the tank may appear clear and pure, but in a short time it becomes cloudy, emits a faint odor and soon turns to a greenish color. After a time green vegetable matter forms, some of which floats on the surface and also gathers on the bottom of the containing vessel. This vegetable growth now becomes the nidus or homestead of innumerable microscopic animalcules of many different species. In due time these plant and animal creations die, and decompose, adding thereby another noxious ingredient to the water. Air and water for human use should be pure, or nearly so ; anything short of purity is an incentive to gastric disorder, and unfavorable digestion. We may not be able to specify with precision if all these vegetable and animal products, are actually poisonous when taken into the stomach ; nor yet how far the heat of the organ may destroy them, and the gastric juice assimilate them like other vegetable and animal food; but we do know that such infected water when drank produces nausea very promptly. The stomach revolts, and indicates to the mind that something unhealthy has been swallowed. We also know that certain of them escape destruction in the stomach, and are absorbed into the blood, and give rise to toxæmia. It is not our object here to discuss these questions, but accepting the well admitted fact that water under the above conditions is unwholesome, to show that these tanks when neglected are the prolific generators of septic fevers, and other diseases of anæmic type not necessarily febrile.

Commencement Exercises of the Medical Department of the University of California.

Pacific Hall, on Tuesday evening, November 18th, was filled to repletion, every seat occupied by the *elite* of the city, ladies and gentlemen, to witness the exercises attendant upon the conferring of the degree of Doctor in Medicine upon such candidates of the State University as had passed satisfactorily the required examination.

The exercises were commenced with prayer by the Rt. Rev. William I. Kip, Bishop of California, after which the orchestra furnished some charming music; then Hon. Joseph W. Winans was introduced, and delivered one of the most instructive, chaste and elegant orations that it has ever been our privilege to listen to. (As this will be published *in extenso* we will not make any extracts.) At its conclusion he was most warmly applauded.

Prof. Brigham was now introduced and delivered the valedictory on the part of the Faculty, after which Mr. Eugene D. Martineaut, on the part of the graduating class, delivered a valedictory address, which was exceedingly creditable to him, considering that it was his first effort before a public audience.

The Dean of the Faculty now presented the following named candidates to the Board of Regents: Alexander P. Whittell, of San Francisco; Julian Sylvester, of Napa; Jerome A. Anderson, of Kansas; W. H. Mays, of Tehama; Martin Schnabel, of New Castle; J. C. O'Neill, of Vallejo; E. D. Martineaut, of San Francisco, and Thomas H. Cox, of San Francisco, and asked that they authorize the honors of the Institution to be conferred upon them, which request being granted, the President, Prof. D. C. Gilman, A. M., in the name of the University, conferred the Degree of Doctor in Medicine upon each.

The Dean then administered the Hippocratic Oath, each candidate voluntarily signing the same, and receiving as a gift, a copy of the Code of Ethics of the American Medical Association.

More music and the benediction concluded the exercises, after which the invited guests, Board of Regents, Faculty, and students partook of a collation, and all seemed to be happy and pleased with the occasion.

We regret that our space does not admit of a more extended notice of this the first commencement exercises of the Medical Department of our State University.

In conclusion, we would, however, wish to say that the class of the University is steadily and rapidly increasing, and the facilities furnished by the Institution are not to be excelled by any in the country, and are far superior to any west of New York, and the graduating class of '73 will have the satisfaction of knowing that their *Alma-Mater* is now permanently established, and being under the auspices of the State, can never cease to exist, but is destined to be for all time the leading school of medicine on the Pacific slope.

Distinguishing Creasote from Carbolic Acid.

It is well known that carbolic acid from coal tar so closely resembles creasote from wood tar in its chemical and physical properties that the former is often sold under the name of creasote. Several methods have been proposed for distinguishing the one from the other. Among these an aqueous solution of baryta, an alcoholic solution of chloride of iron, as well as glycerin, have been suggested, but none have proved entirely satisfactory.

Mr. A. M. Read, in a thesis read before the National College of Pharmacy, at Washington, D. C., gives the results obtained with aqua ammonia, and recommends its use for distinguishing the two. Carbolic acid dissolves in an equal volume of aqua ammoniæ fortior, sp. gr. 0.900, and upon standing acquires a beautiful violet blue color. Common creasote he found to be insoluble in ammonia, but in a short time it acquired a light blue color. Upon Morson's creasote ammonia had no effect whatever, neither dissolving it nor giving it the blue color that it gave to common creasote. Merck's creasote gave the same results. Although most text books state that carbolic acid is insoluble in ammonia, Mr. Read's experience proves the contrary, and offers a convenient test, if truly reliable.

State Board of Health.

Abstract from the Reports of Deaths and their Causes in the following Cities and Towns in California, during September, 1873.

CITIES AND TOWNS.	Total No. Deaths.	PREVALENT DISEASES.						AUTHORITIES.
		Consumption.	Other Diseases of Lungs.	Dis. Stomach and Bowels.	Diphtheria.	Scarlatina.	Typho-malarial Fevers.	
San Francisco	308	45	19	25	2	26	11	S. F. B'd of Health.
Sacramento	24	1	2	3	0	0	4	Sac. B'd of Health.
Petaluma	4	1	0	0	0	0	0	Dr. G. W. Graves.
Dixon	2	1	0	0	0	0	1	Dr. A. H. Pratt.
Stockton	6	0	2	0	0	0	1	Stockton B'd Health.
Marysville	...	..	..	..	.	..	..	Dr. C. E. Stone.
Placerville	1	0	0	0	0	0	1	Dr. E. A. Kunkler.
San Diego County	1	0	0	0	0	0	0	Dr. T. C. Stockton.
Oroville	...	..	..	..	.	..	..	Dr. J. M. Vance.
Oakland	27	5	2	4	1	1	1	Dr. T. H. Pinkerton.
Los Angeles	18	3	0	0	0	0	1	Dr. H. S. Orme.
Truckee	8	1	0	0	0	0	2	Dr. Wm. Curless.
St. Helena	3	2	0	1	0	0	0	Dr. J. S. Adams
Napa City	2	0	0	0	0	1	0	Dr. M. B. Pond..
Watsonville	...	..	..	..	.	..	..	Dr. C. E. Cleveland.
Folsom	1	0	0	0	0	0	0	Dr. S. Lyons.
Santa Cruz	3	2	0	0	0	0	0	Dr. C. L. Anderson.
Suisun, Fairfield	0	0	0	0	0	0	0	Dr. S. D. Campbell.
Colusa	...	..	..	..	.	..	..	Dr. Luke Robinson.
Trinity County	0	0	0	0	0	0	0	Dr. J. C. Montague.
Santa Barbara	11	2	0	0	0	0	1	Dr. C. B. Bates.
Redwood City	2	0	0	0	0	0	0	Dr. Kirkpatrick.
San Andreas	0	0	0	0	0	0	0	Dr. C. B. Robertson.
Auburn	...	..	..	..	.	..	..	Dr. A. S. Dubois.
Tulare County	...	..	..	..	.	..	..	Dr. M. Baker.
Siskiyou County	0	0	0	0	0	0	0	Dr. T. T. Cabanis.

REMARKS—In view of the prevalence of scarlet fever in various parts of the State, and especially in San Francisco, as shown in our table, I deem it proper, at the present writing (November 24th) to submit, *for the benefit of the public*, the following brief memorandum respecting its nature, and the most available means of combating and arresting its ravages. The disease is eminently communicable—the patient contaminating the atmosphere, so that no susceptible person can remain in the same room, or indeed in the same house, without danger of contracting it. The

prophylaxis, or preventive treatment, therefore, requires the separation of the healthy from those affected with the disease, and from those who have intercourse with such patients. This is the only measure that promises any positively good results. Hence it should be carried out during malignant epidemics—even to the temporary breaking up of every academic establishment: for it is hardly possible to isolate children in the same house or school, however large, so as to prevent the disease from spreading. Fumigation and the so called disinfectants will not destroy the miasmata in the sick room; and consequently cleanliness and ventilation are imperatively called for. We cannot disinfect the walls of the chamber, nor the clothes of the patient except by washing them, or exposing them to a dry heat, exceeding the boiling temperature. The diet of the patient should be slops, light, nutritious broths, milk, etc. The danger should not be considered passed till the desquamation of the skin shall have been thoroughly accomplished —till all the old cuticle has been removed. Therefore the patient should be kept in bed till convalescence is perfectly established, and the temperature of the room maintained about and not below 60°. If the whole surface of the body is well rubbed over once or twice a day with camphorated oil, the irritation of the skin will be soothed, and the process of desquamation facilitated. In fact the free use of this oil is one of the best preventives against all the eruptive fevers. All ages are liable to the disease, but it is most common to childhood except during the early months of lactation. The chances of attack are less for very young infants, and decline rapidly after the fifth year. The prodromal stage begins with repeated rigors—more rarely with a single chill. The bodily temperature soon rises from its normal heat, (98½°) to 104° or 105°, and the pulse is often 120 to 130 beats a minute. And since along with the fever, the subjective and objective symptoms of imflammation of the throat usually occur, we may generally decide, even at this time, that the case is one of commencing scarlatina, and not of measles or other infectious disease. Medical advice

should always be had recourse to; for the worst cases, we sometimes meet with, are those in which the disease has, from its apparently mild character, been left to itself.

THOS. M. LOGAN, M. D.,
Permanent Secretary State Board of Health.

Absorbing Power of the Human Skin.

Dr. Thompson, of Edinburgh, gave some experiments which he tried on his own person to ascertain the truth of the statements made as to the curative power of mineral water baths, depending on the absorption by the skin of certain salts and other substances which they hold in solution; and, further, to ascertain whether certain substances applied in the form of ointments, etc., pass through the skin and reach the blood before they produce any beneficial effect. His conclusions are, that not only has absorption by the skin been greatly exaggerated, but in the case of substances of aqueous solution it seems to be the exception, not the rule, for absorption to take place; and that in the case of ointments, etc., some of the substances so applied seem to be absorbed and others not.

Book Reviews.

LECTURES ON CLINICAL MEDICINE. By A. Trousseau, late Professor of Clinical Medicine in the Faculty of Medicine, Paris; Member of the Imperial Academy of Medicine; Physician to the Hotel-Dieu, etc., etc. Translated from the third revised and enlarged edition by Sir John Rose Cormack, M. D., F. R. S. E, Fellow of the Royal College of Physicians of Edinburgh, etc., etc., and P. Victor Bazire, M. D., Assistant Physician to the National Hospital for the Paralyzed, etc., etc. Complete in two volumes. Philadelphia: Lindsay & Blakeston; San Francisco: A. Roman, & Co.

The name of Trousseau is known co-extensively with the science of medicine, and the translation before us from the third French edition, is deserving of more than a passing notice.

For upwards of half a century Trousseau has been connected with the leading hospitals of Paris and more particularly the Hotel-Dieu. With a mind, such as few men possess; a training, such as none have excelled; a devotion, we may say, unequalled, he observed and noted with an accuracy that no other man has ever attained to.

The result of his unremitting labors are given in these pages, and although Trousseau has passed from this world and scene of action, yet, through this work he has left an everlasting inheritance, reared a monument which will for all time endure and bestow a boon upon suffering humanity and the profession of medicine that will be the means of bringing comfort and relief to hosts of sufferers and gladness of heart to thousands of practitioners.

To attempt to give a *resume* of these lectures would be superfluous as all are familiar with the character and the reputation of their author.

At the present day no work on the practice of medicine or the collateral sciences is printed in the modern languages that does not make frequent and extensive allusion to, and extracts from Trousseau; and now that these works of the "great master" are furnished in the condensed form of two volumes, which were originally printed in five volumes, there is no excuse for any practitioner not having a copy upon his shelves.

The present edition has been revised and is greatly improved, and we opine will meet with a larger sale than any similar work extant.

CHEMISTRY—INORGANIC AND ORGANIC—WITH EXPERIMENTS. By Chas. Loudon Bloxam, Prof. of Chemistry in King's College, London, etc., etc. With Two Hundred and Ninety-five Illustrations. From 2d and Revised English Edition. Philadelphia; Henry C. Lea; San Francisco: A. Roman & Co.

The Author in his preface to the 2d edition, uses the following language. "Although I thoroughly appreciate the beauty and harmony of the Atomic System, and acknowledge the immense assistance which it has afforded research, I contemplate with *regret* its almost universal adoption by chemical teachers in this country, since it involves the necessity of propounding the difficult hypothesis of the *finite* divisibility of matter, at the commencement of a study which has been recommended to the student as strictly experimental, and as affording a mental relief from the abstractions of mathematics."

In this view we opine most of the teachers of this important branch of medical and general science are in sympathy with our author, yet the necessity of science demanded imperiously the adoption of this system of atomic notation and all minor considerations were very properly set aside, and so universally will it be adopted that twenty years hence it will be forgotten that any other system had ever been followed.

The work under consideration is beautiful in its typography and general appearance, and abounds in elegant wood cuts illustrative of the various experiments of the science; in this particular it is the equal if not superior of any work on chemistry in the English language, and will be found an invaluable aid to the student of chemistry in making the varied experiments of the laboratory.

THE STUDENT'S GUIDE TO MEDICAL DIAGNOSIS. By Samuel Fenwick, M. D., F. R. C. P.; Assistant Physician to the London Hospital.

The volume before us is one with which many physicians are acquainted, but there are many more who should be, as it is doubtless the most comprehensive yet concise work on the subjects treated to be found in the English language. Whilst many other books on similar topics, such as Loomis' of New York, and others are excellent so far as they extend, this work though smaller is more comprehensive; and the

different diseases treated of, together with the very superior cuts with which it is illustrated, are so arranged as to facilitate the study of diagnosis and to prove an invaluable auxiliary to the study of medicine. Philadelphia: Henry C. Lea; San Francisco: A. Roman & Co.

AN INTRODUCTION TO PRACTICAL CHEMISTRY INCLUDING ANALYSIS. By John E. Bowman, F. C. S., late Professor of Practical Chemistry in King's College, London. Edited by Chas. L. Bloxam, F. C. S. Henry C. Lea, Philadelphia; A. Roman & Co., San Francisco.

This small volume, as its title indicates, is intended as an introduction to practical chemistry, and upon perusal will be found to be all that is claimed for it.

That portion of the book which is devoted to analysis is certainly concise and practical, and whether in the hand of the student or practical chemist will be found to be an invaluable aid to the experimental study of Quantitative Analysis.

SEX IN EDUCATION; OR, A FAIR CHANCE FOR THE GIRLS. By Edward H. Clark, M. D., late Professor in Harvard College, etc., etc. Boston: J. R. Osgood & Co.; San Francisco: A. Roman & Co.

The little volume before us is devoted to the discussion of a great question, and the author has produced the most intelligent disquisition upon the "woman question" that has ever fallen under our eye.

He takes the only sensible view of it when he asserts that there is "no such thing as inferiority or superiority in this matter." "Man is not superior to woman nor woman to man. The relation of the sexes is one of equality, not of better and worse, nor of higher and lower."

"By this it is not intended to say that the sexes are the same." They are different, widely different, from each other, and so different that each can do, in certain directions, what the other can not.

The author has arranged his subject so as to discuss it from a physiological and clinical standpoint. It is

couched in such plain language as to bring it entirely within the comprehension of all; and, in our judgment, should be read by all who are interested in the important question, (whether it be a parent, guardian, or teacher,) "What is the best education for our girls?"

TRANSACTIONS OF THE AMERICAN MEDICAL ASSOCIATION; Vol. 24th, 1873. San Francisco: A. Roman & Co.

We are in receipt of the transactions of the American Medical Association, but on looking through them fail to discover anything of great interest to the profession. The truth is, this Association, for some reason not (we believe) understood by any one, has failed to accomplish the ends for which it was organized. Year after year its members meet, hand in their several reports and pass too much of their time in wrangling over questions in which science is rarely associated, and we hope that now, as attention is being drawn to this fact, that a greater effort will be made to elevate the character of its session and the science be enriched through the contributions of its members.

Dr. Toner, who was elected President, is an energetic worker, and we opine that the next session will be a decided improvement upon any held within the past ten years.

FACTS AND REMINISCENCES OF THE MEDICAL HISTORY OF KENTUCKY: An Address before the Kentucky State Medical Society. By Lewis Rogers, M. D., President.

This pamphlet, as its title indicates, is a history of matters medical in Kentucky, and commences with the organization of Transylvania University in 1798.

Much of it may be familiar to Kentuckians, but we opine that never before has so complete and interesting a history been collated and printed as this address furnishes.

The author, Prof. Lewis Rogers, formerly of the University of Louisville, is one of the oldest practitioners in Kentucky, and no one probably could be more familiar with much of what he has written or would have presented it in so acceptable a manner.

Dr. Fox

Vol. 11. DECEMBER. No. 12

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